

CRYSTAL SPRING PARK

A GARDEN
FOR
SOUTH ROANOKE

by

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Thesis submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of
MASTER OF ARCHITECTURE

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H. L. Rodríguez-Camilloni

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Blacksburg, Virginia

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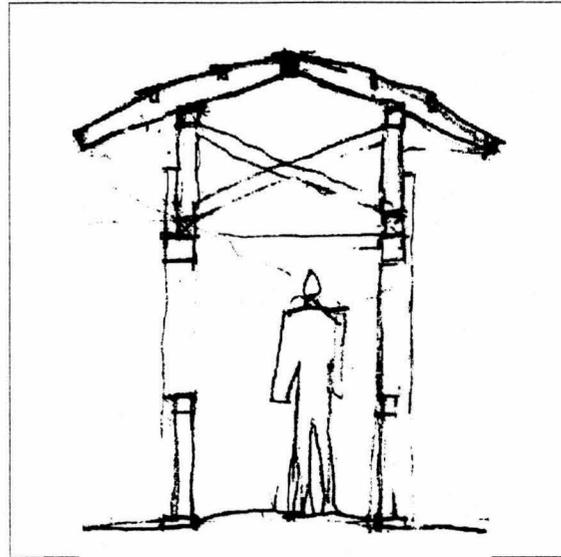
Committee Chairman: Joseph Wang, Architecture

(ABSTRACT)



A Shrine of the God of Earth

Every few square miles in the rural area of Taiwan, there is a tiny little building similar to this that houses the God of Earth and his wife. In most cases, an old tree will stand right beside the shrine like guarding the surrounding area. It is visited very often by the neighborhood residents not only for saluting the god but also for enjoying the sheltering of the tree.



ACKNOWLEDGMENT

I am deeply indebted to Dr. Joseph Wang, chairman of my committee, for his support, guidance and advice in the work of my thesis as well as in the period of my life of graduate study. His understanding and faith in me gave me the encouragement necessary in accomplishing my research. I wish to thank my other committee members, Prof. Michael O'Brien and Dr. H. L. Rodriguez-Camilloni. Michael has always been encouraging and helpful throughout the developing of the thesis. His keen advice open many of my new scopes on architecture. And Dr. Rodriguez has profoundly altered my aspects on historic subjects and has brought the urban consideration and user-oriented design concepts into the thesis.

Special thanks to my love , for her support, patience, and inspiration during the past two and half years, and to my dear mother and father for their moral and financial support to my graduate study, and for believing in me.

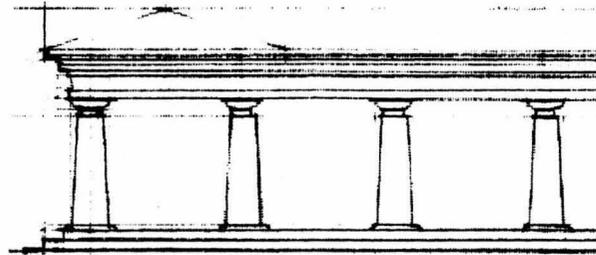


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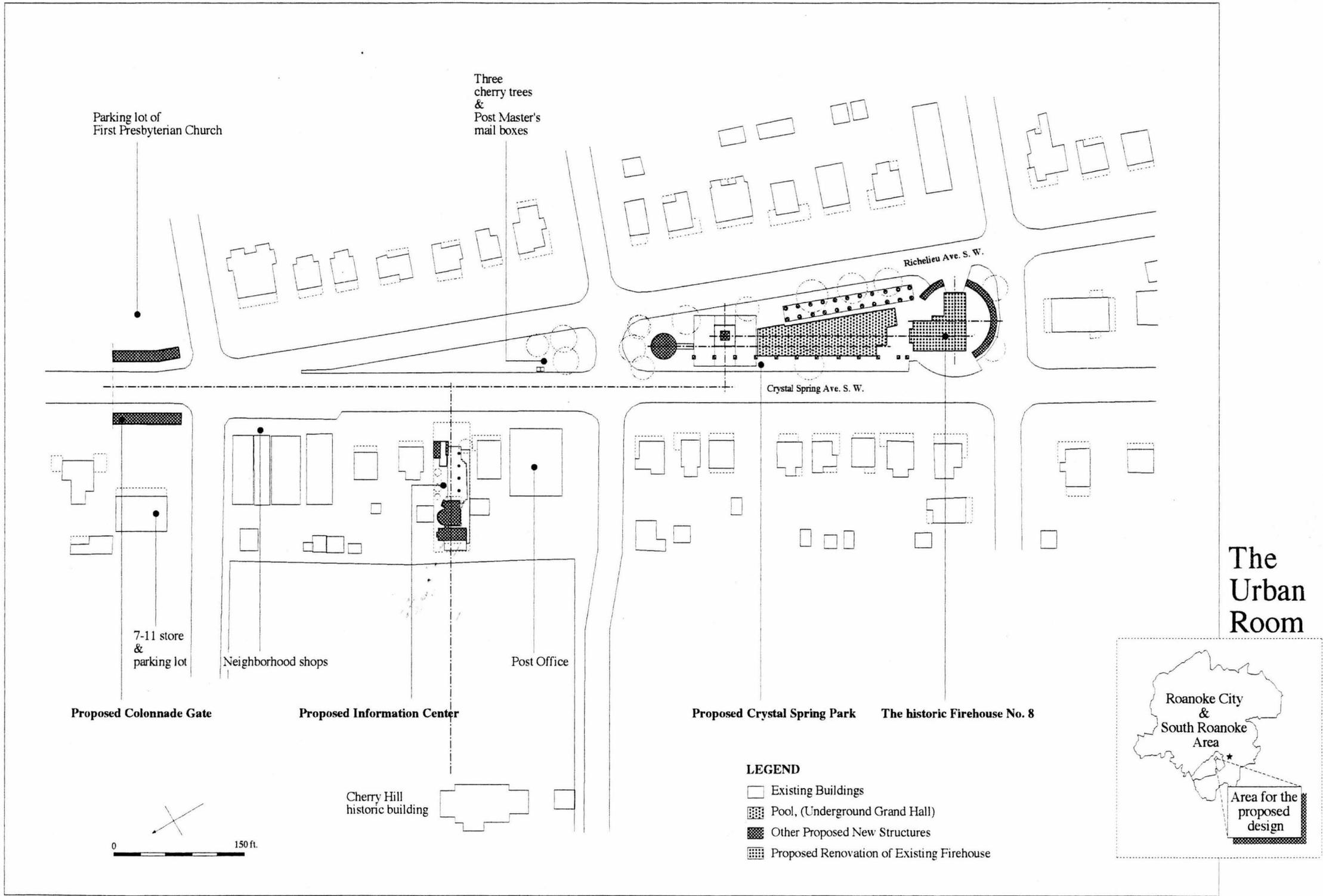
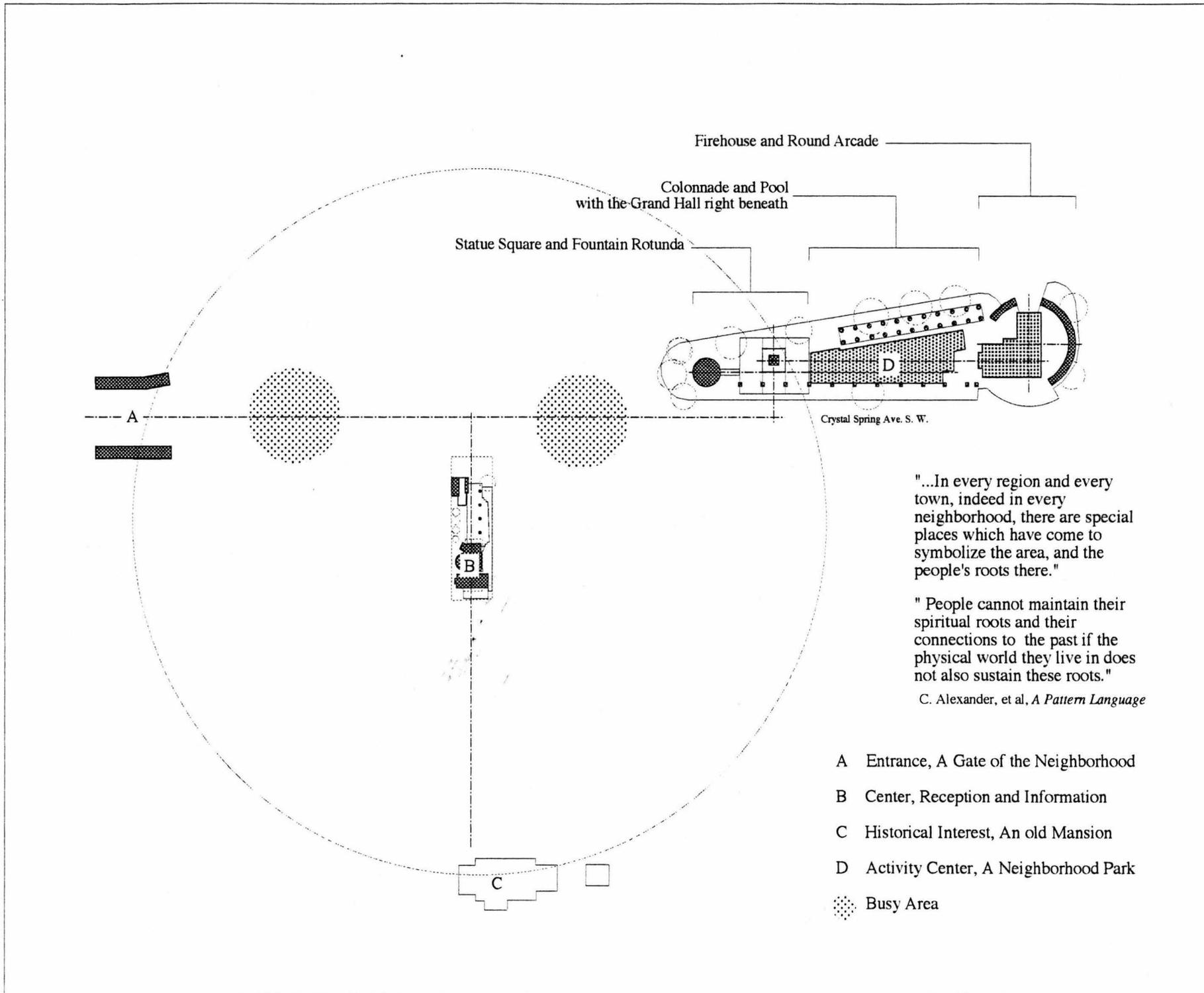


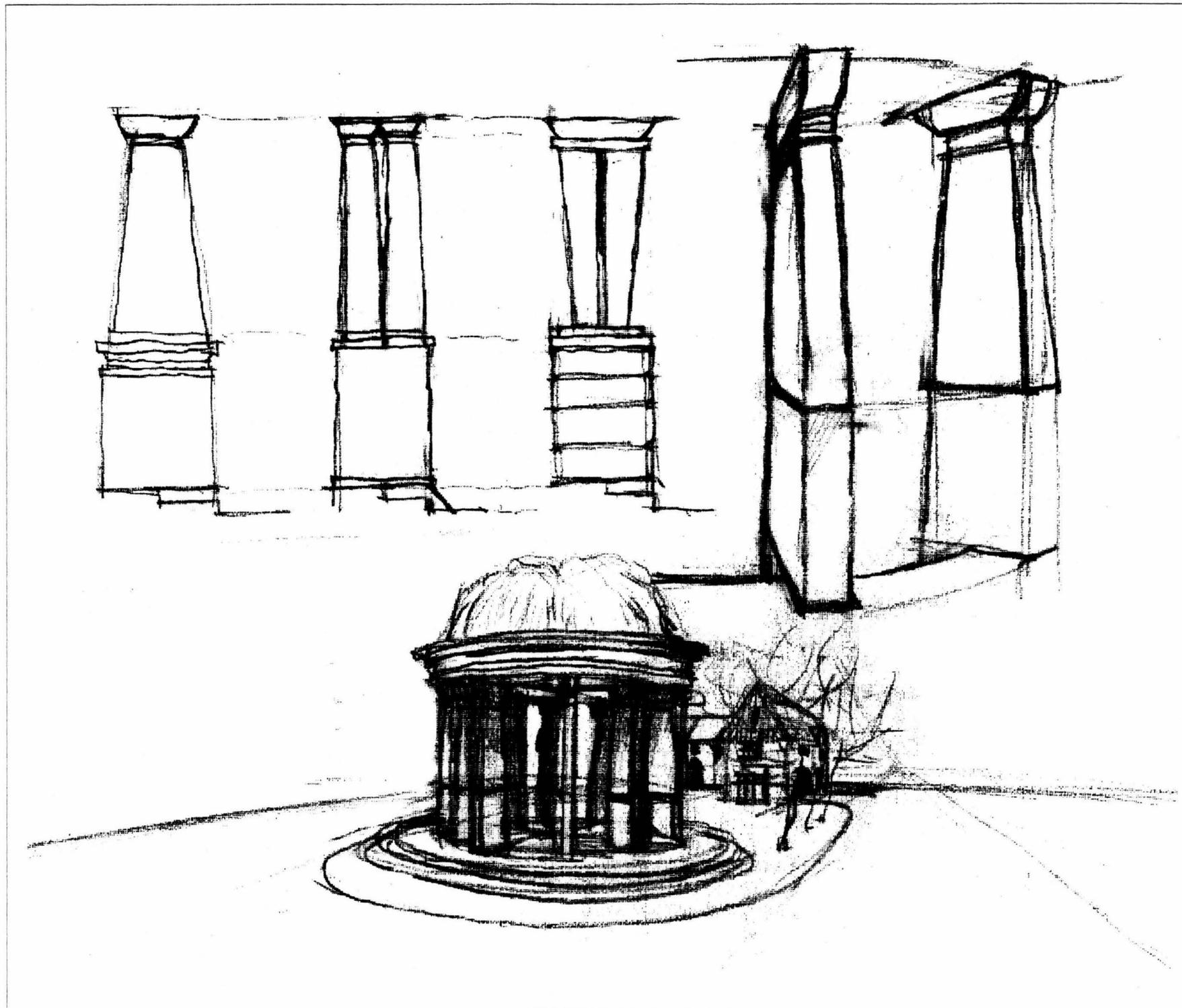
Exhibit 1: An Urban View Around the Site



The diagram is about the topological relations between several essential elements in this urban room. The efforts of this design in pursuing harmonic co-existence between existing/natural elements and the proposed structures should also be noticed. A sequence of spaces has been taken into account in the new design:

- 1) A pair of colonnades (A, see page 5) were added to define a converging space like a gate for the urban room;
- 2) B, a reception center of the neighborhood locates the center of the circle that encompasses the major design elements (a proposed design previously done by the author; see the note in the appendices);
- 3) D, the proposed community center and neighborhood park.

Exhibit 2: Diagram of Relations between Places



Efforts also were made in search of the proper orders that would fit in the context of the neighborhood. Shown in this drawing are several ideas that were inspired either by classical orders or by local vernacular motifs. Some designs eventually evolved into the flower column of the Grand Hall in this design. (refer to page 15-20) In addition, the structure in the lower part of this sketch leads to the final rotunda design. (See perspective in page 8)

Exhibit 3: A Study of New Orders



Exhibit 4: A Study of the Neighborhood Entrance



The Crystal Spring Square

Since the early 1700s, Crystal Spring has provided water which was the basic support for the early residents of the area. "1891, Mill Mountain and Crystal Spring were obtained by the Roanoke Gas and water Company. A carriage road along the southern edge of the mountain was built to the summit, where the company's most spectacular resort hotel, Rockledge Inn, was developed."

(Continued on next page)



Exhibit 5: Design of the Statue; Upper left, photograph 1: Jojo Cole in the film *The Death of the the Heart*

(Continue from last page)

According to the summary in *South Roanoke Neighborhood Plan*, "This became a favorite Saturday night gathering place and during the 'Roaring Twenties' the parties of the Rockledge Inn German Club were unrivaled anywhere. The Inn also had many prominent visitors including Adlai E. Stevenson (1835-1914, vice president of the U. S. 1893-1897.)" It is clear that Crystal Spring has not only provided water supply for the region, but also served as an inspiration in the development of the neighborhood's recreational ambiance.

Nurturing the neighborhood like a mother, the spring depicts a feminine nature. That is exactly the initial idea that I created a female figure as the form of the statue in the design. The femininity of the neighborhood comes from many other sources. It derives from the well-maintained plants and houses, old buildings and local history, and the elegant life style of its residents. This tender nature can be well illustrated by sketch and picture as shown on page 5.

The rotunda, which has fountain on the architrave that shoots strings of water to form the dome, is another manifestation of Crystal Spring. Since the fountain can be designed to perform water-shows periodically, it could be a vivid place attracting the attention from neighborhood residents.

Centralized by the statue, a glass-block enclosed stairway leads visitors descending into the underground spaces where a hall for the community is located. It is named the Grand Hall.

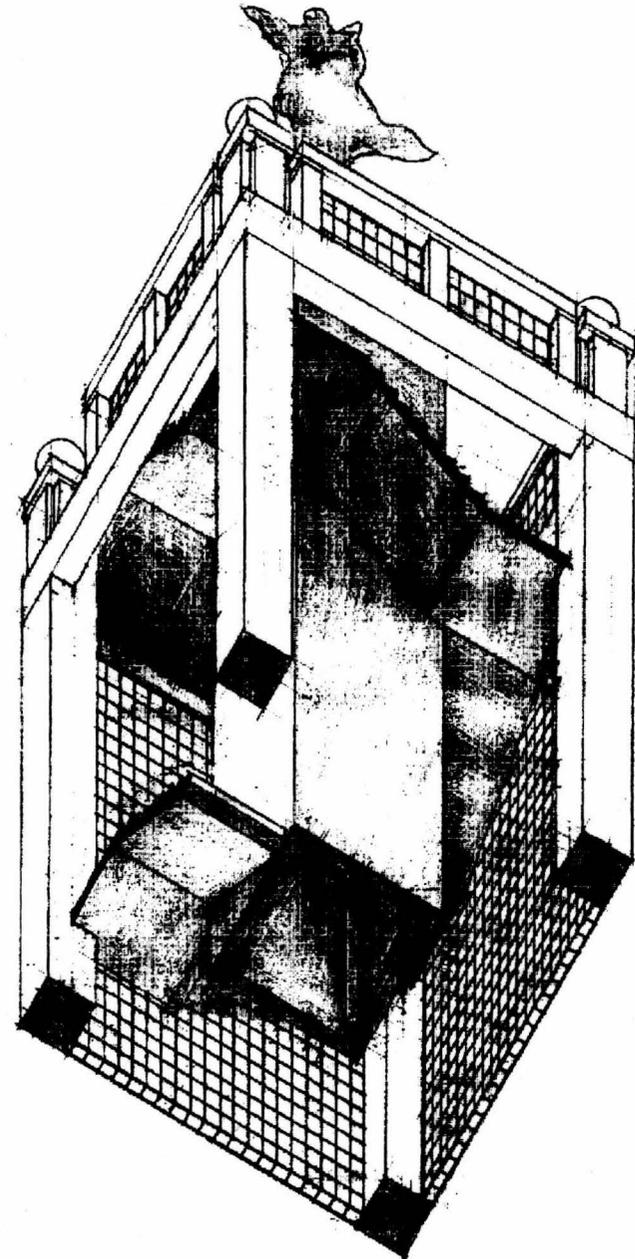


Exhibit 6: A Study of the Main Entrance Stairway

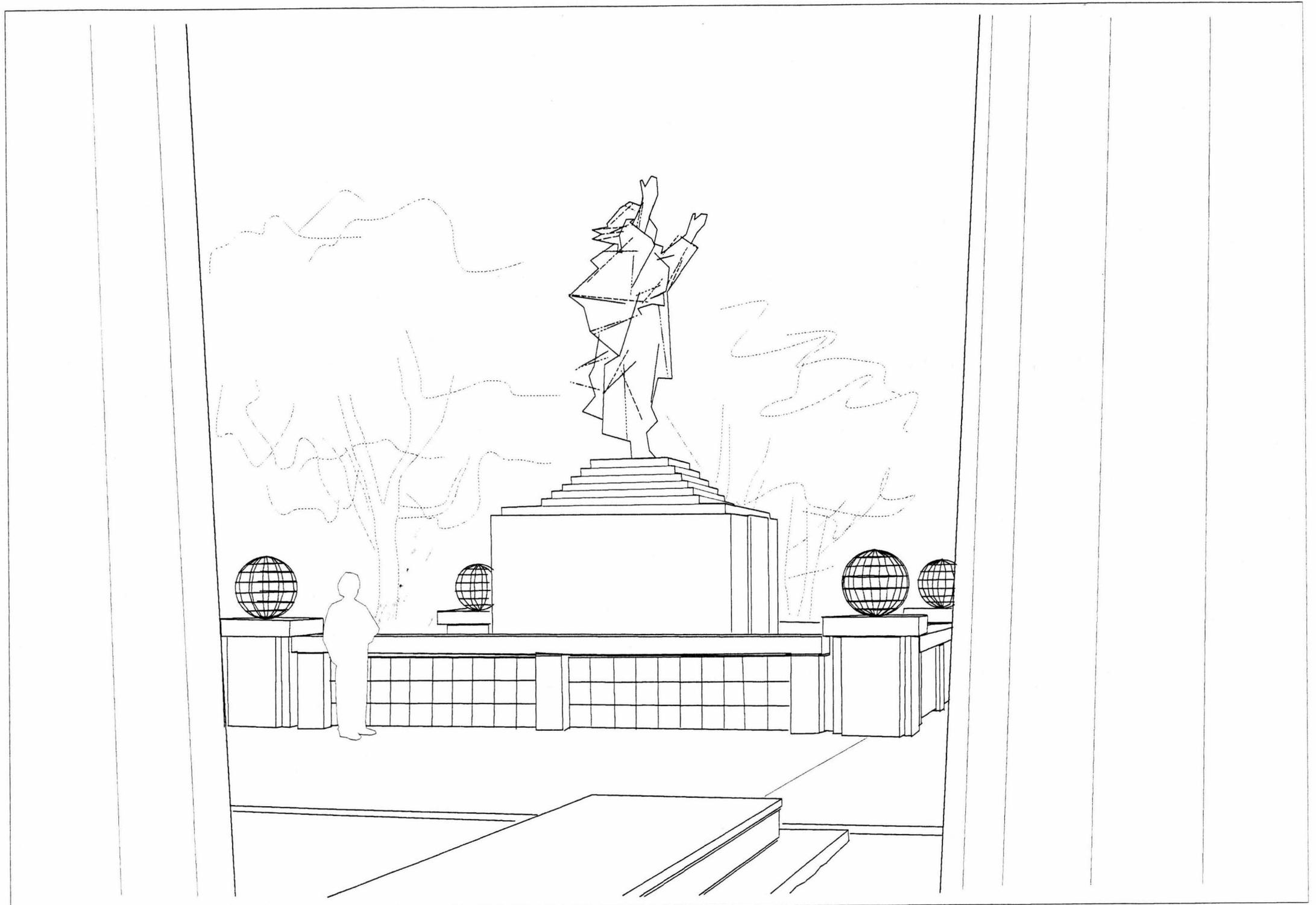


Exhibit 7: A View of the Statue Square from the Fountain-Rotunda

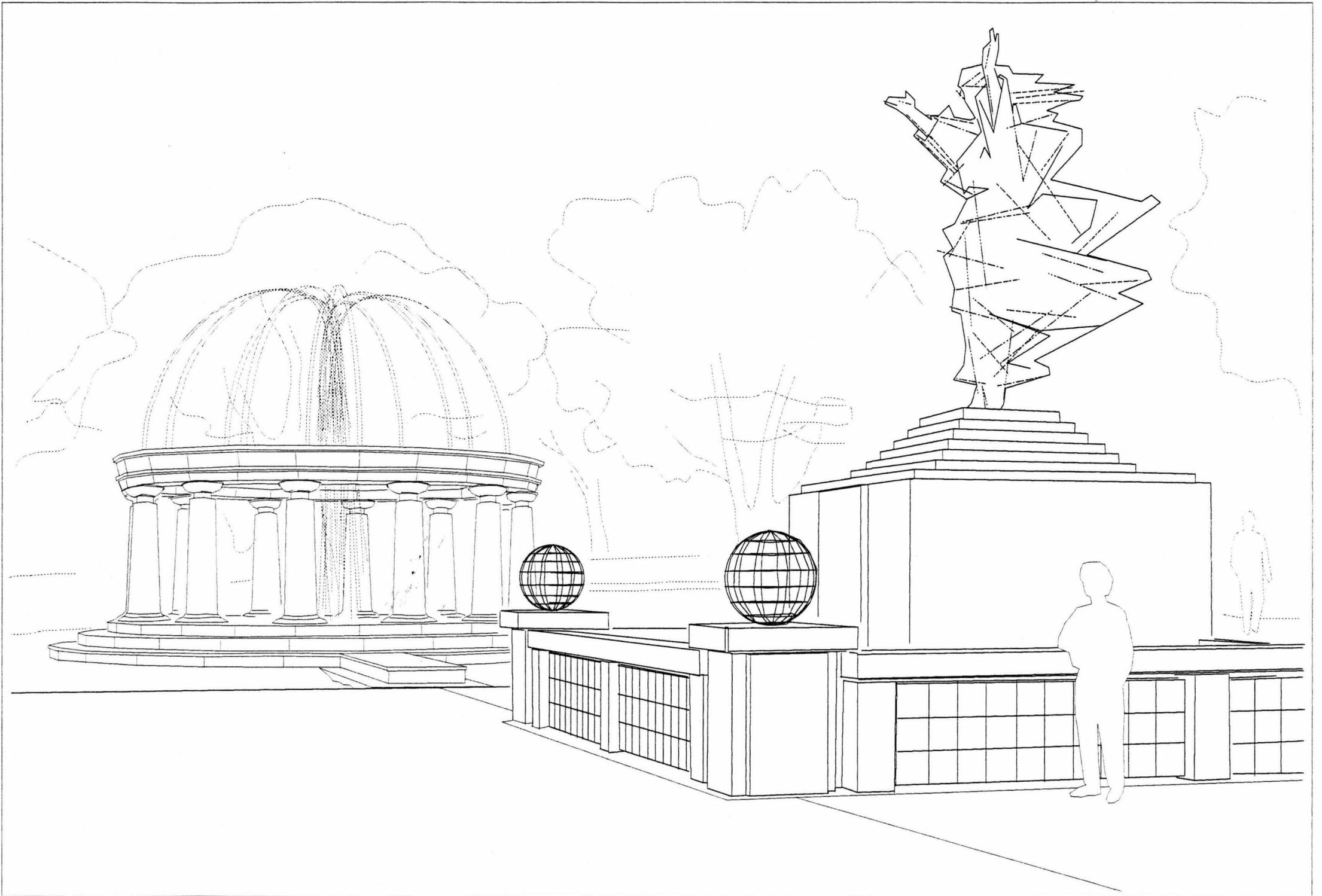


Exhibit 8: A View from the Statue Square toward Fountain-Rotunda

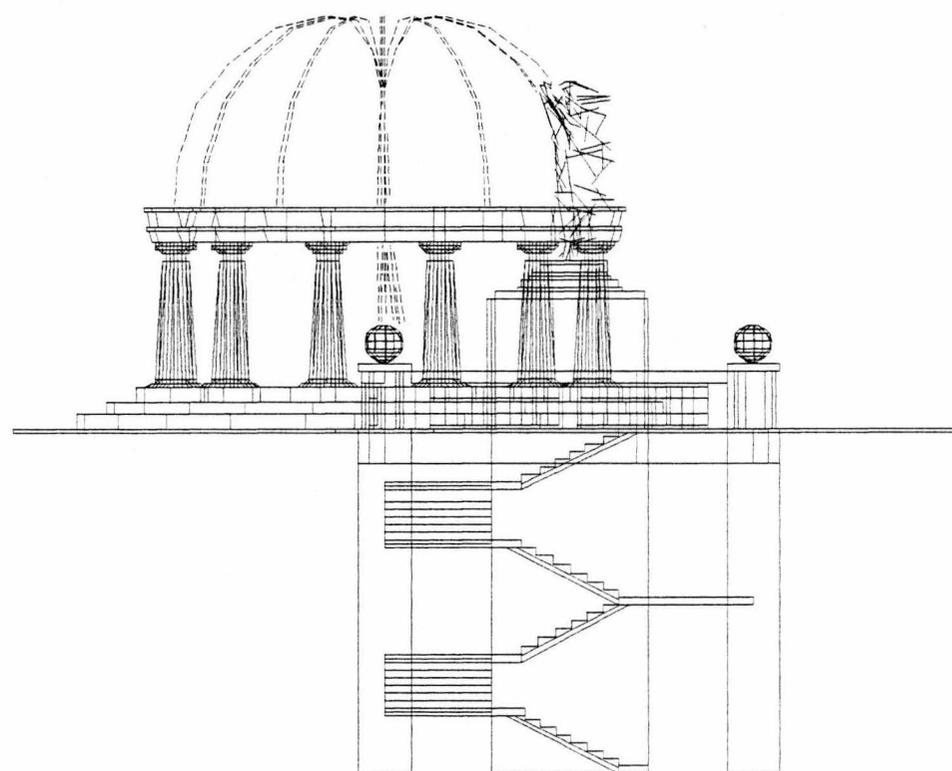


Exhibit 9: South Elevation of the Statue Square with the Fountain-Rotunda

0 1 3 7m

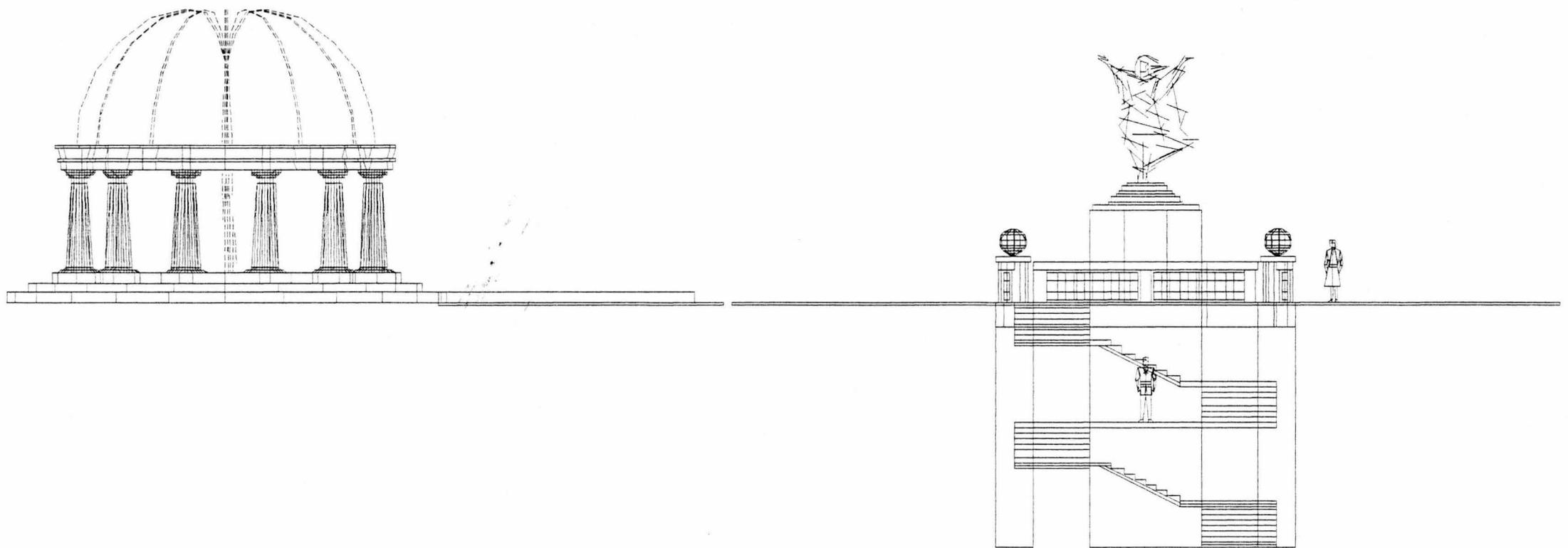


Exhibit 10: West Elevation of the Statue Square with the Fountain-Rotunda

0 1 3 7 m

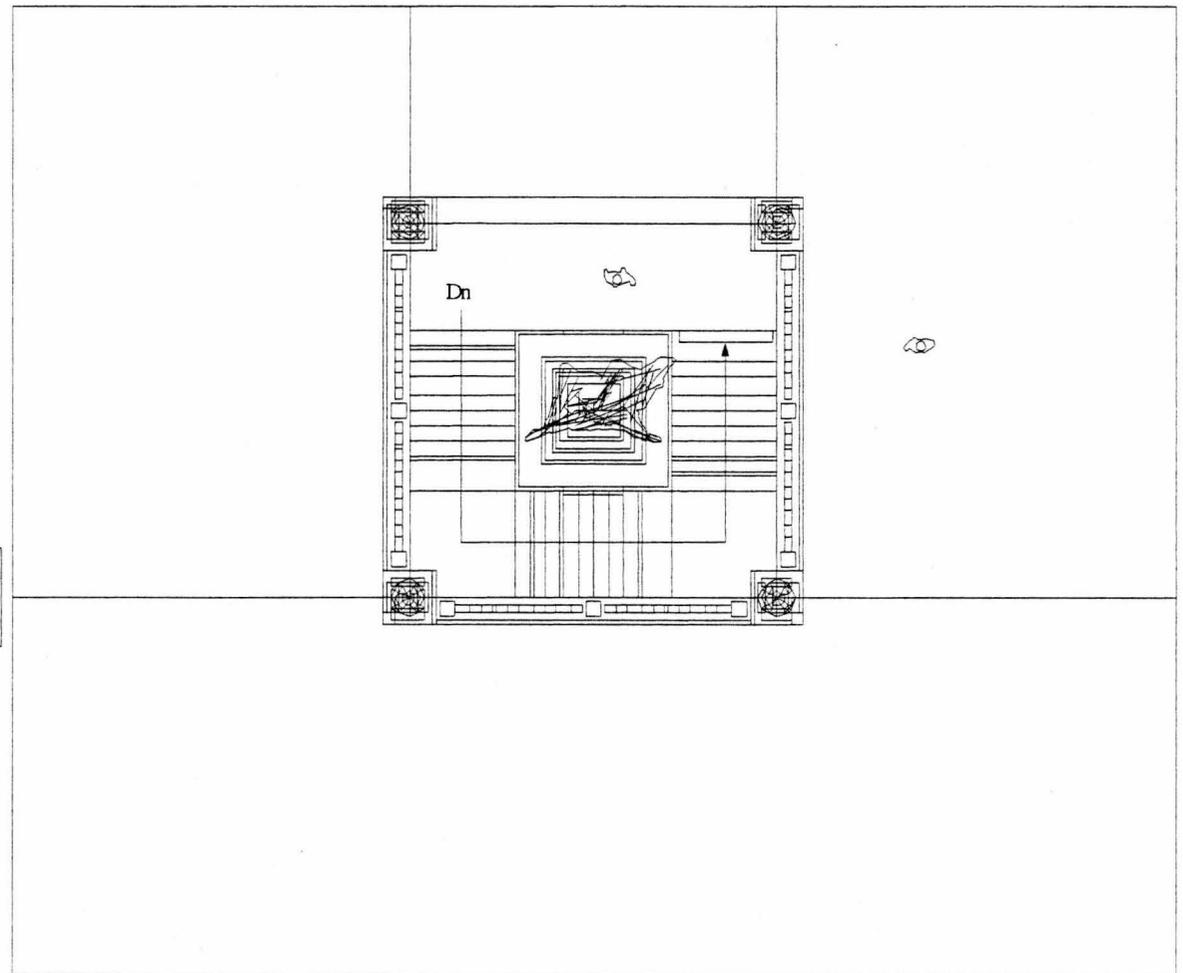
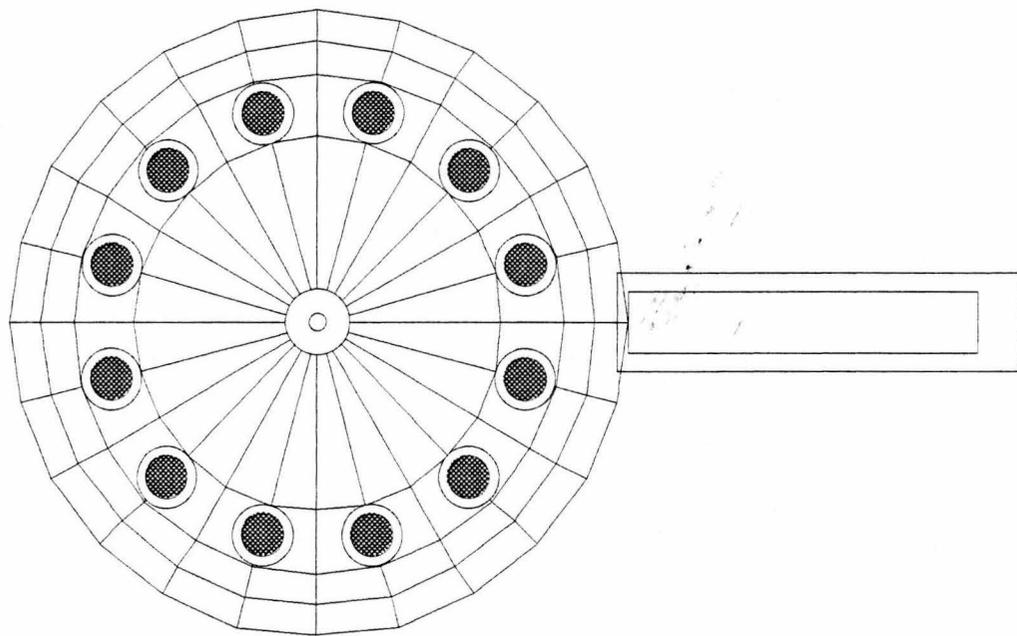
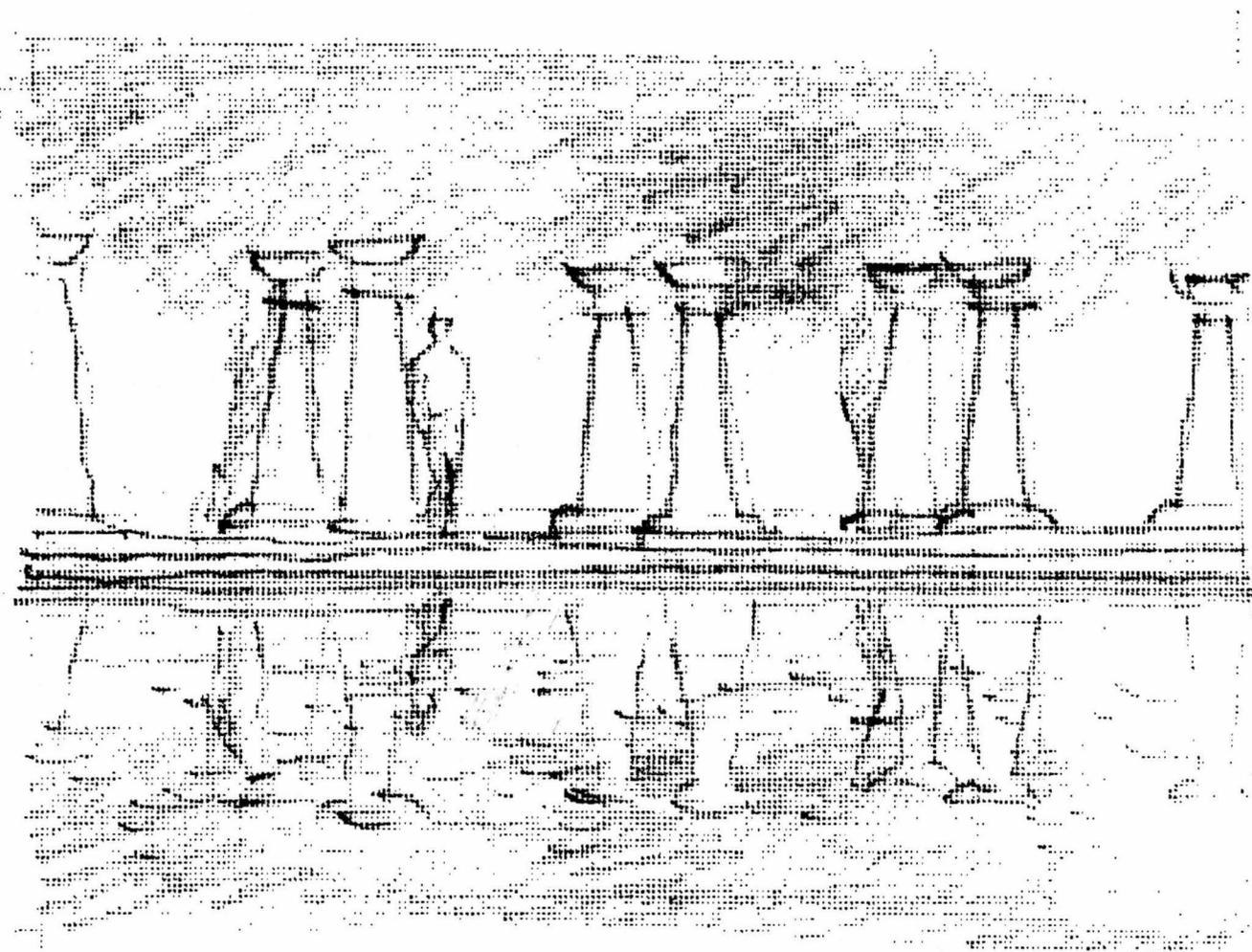


Exhibit 11: Plan of the Statue Square with the Fountain-Rotunda

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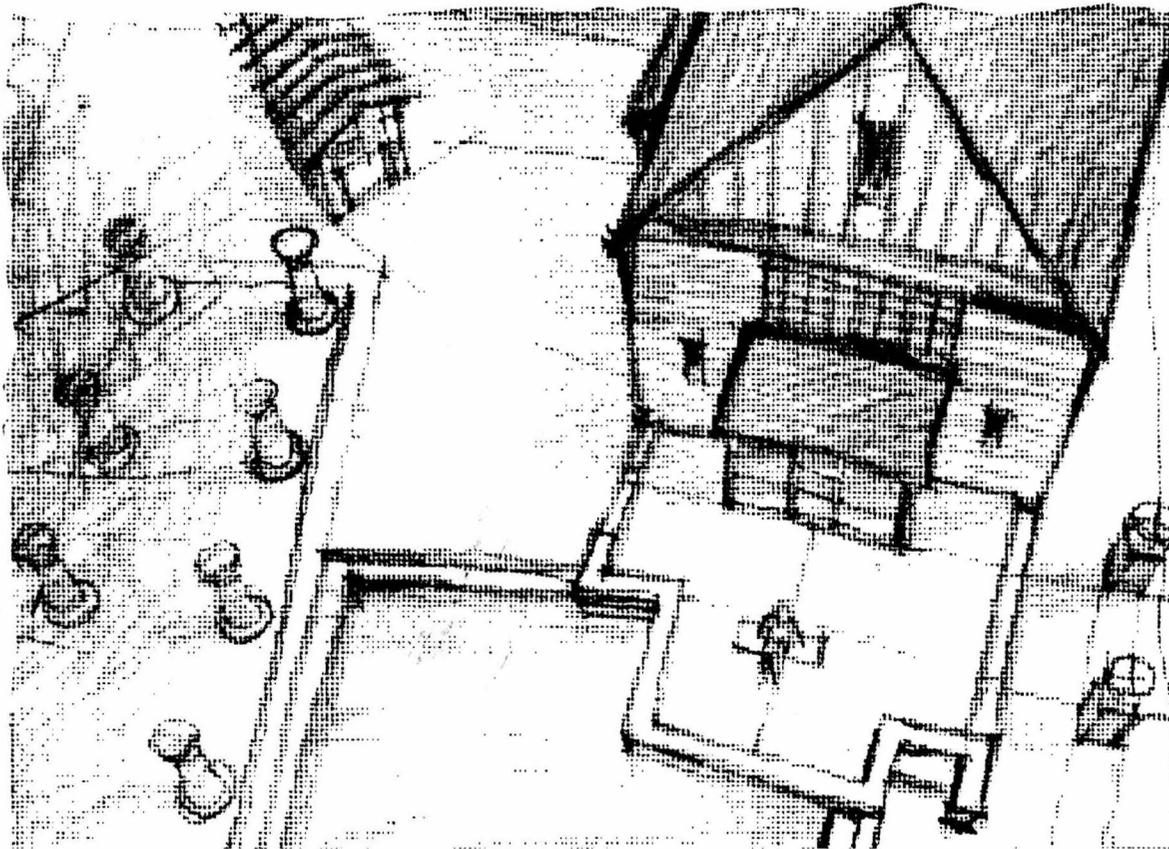
"...he places himself in front of nature as an equal 'partner.'"
C. Norberg-Schulz, *Genius Loci, Towards A Phenomenology of Architecture*

Trees and Water

Trees have long been an obsession for me since I was a child living in the rural area in Taiwan. Bamboo leaves falling around me on some windy day; the foliage with fresh green in the rain are such memories that always bring me ecstasy.

Growing rice in fields filled with water is typical in southern China. Water to me is such an intimate, natural element. Waterways running all over the countryside nurture farm produce. Women do their laundry and children enjoy their fishing in little streams and brooks nearby their homes. They drink and cook with the water taken from the well in their back yard. Children catch fish by building a dam blocking out the water from a sector of the little stream, then pull out most of the water inside. Thus, they can easily harvest in the shallow water. It seems that a good young fisherman is also a well learned hydrologist. And, the water in the well has the calmest surface just like a mirror in which I can watch my image and the sky behind.

With the companionship of water and tree, I know I am one of the members of *Nature*.



"To dwell between heaven and earth means to 'settle' in the 'multifarious in-between',..."

C. Norberg-Schulz, *Genius Loci, Towards A Phenomenology of Architecture*

Sky and Reflection

The levee, which was piled up with round rocks and sat along the little river not far from my home, was our favorite place to sit down and enjoy a gentle breeze after an afternoon's exhausting adventure. Naturally, it would be about the time the sun finds his way home. Casting the silhouette of the bamboo trees along the river bank, the splendid sky in living color started to shelter the dimming earth and the children sitting on the levee. It seems as though it was the only brief moment of the day when these kids would sit tight rather than running wild and try to rule the world. Following the magic show of the sky, the reflection on the river twinkled in various colors with water's constant humming slowly turning into a mystic sonata of the night.

To me, that's when the sky and the water in the river became heavenly deep.

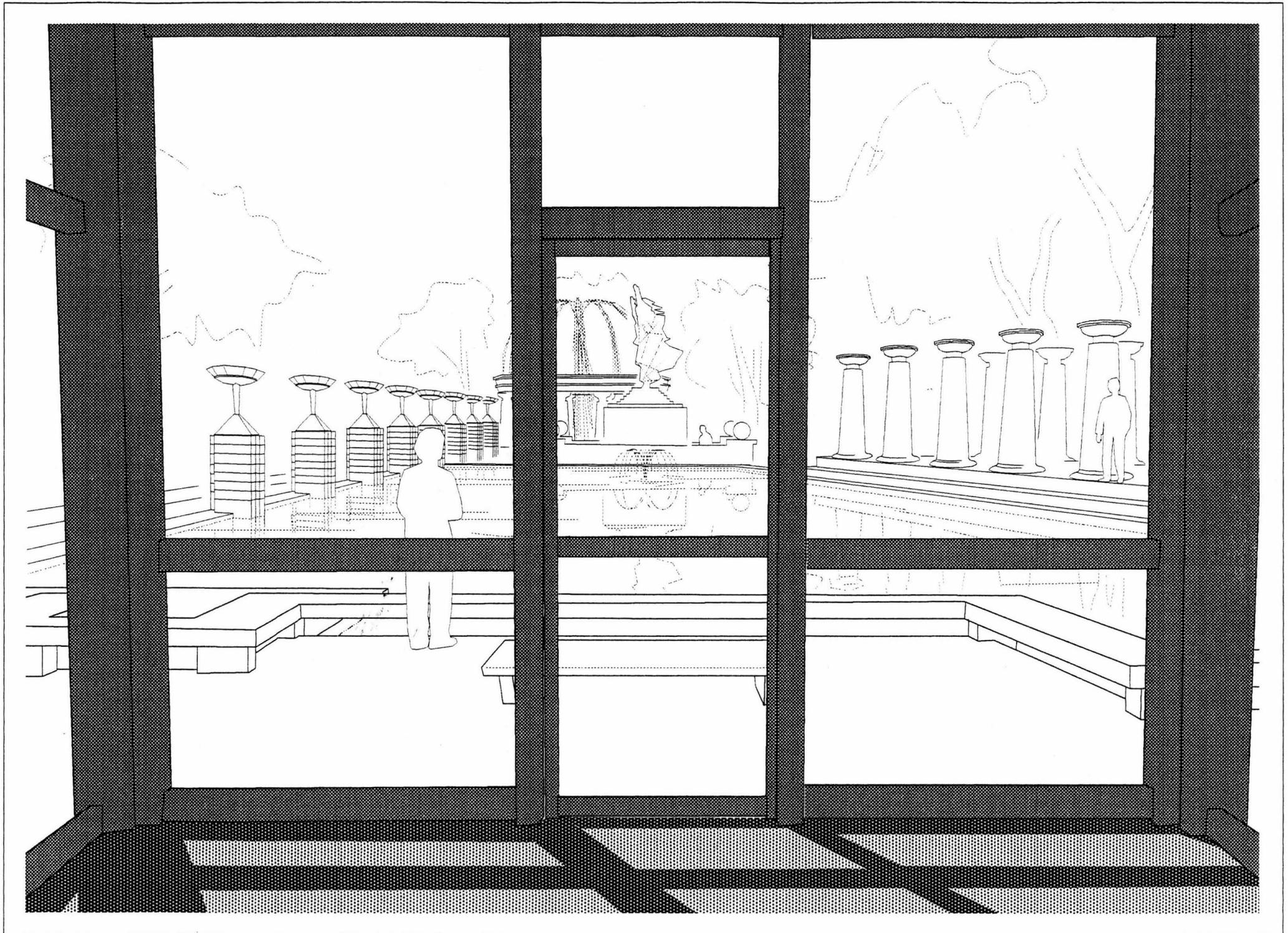


Exhibit 12: View of the Park from the Small Porch of the Firehouse

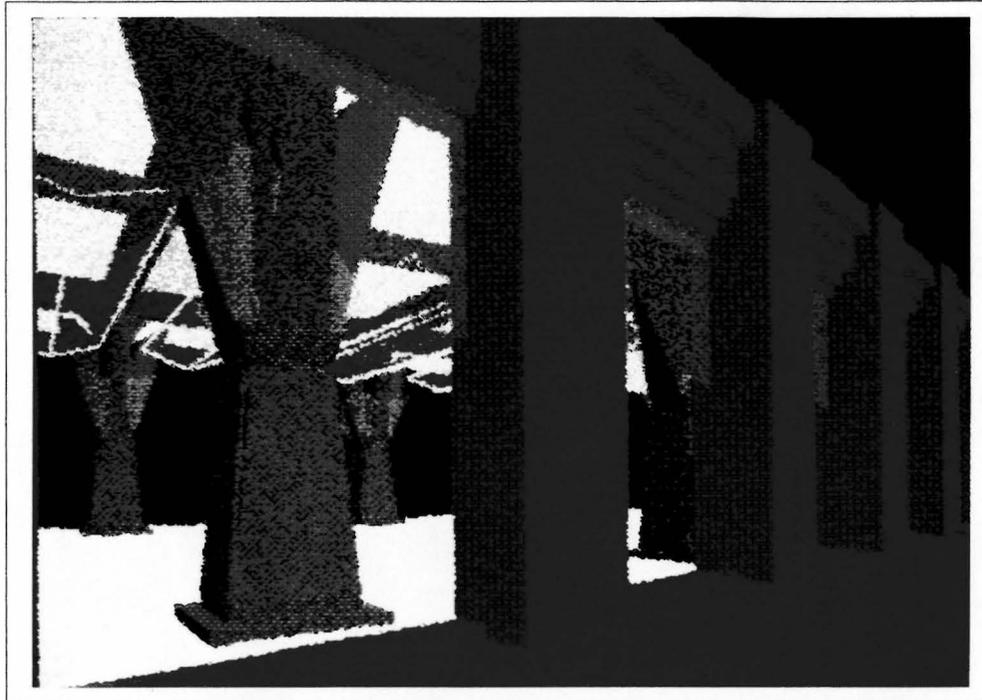


Photo 2: Grand Hall: a view from the side arcade

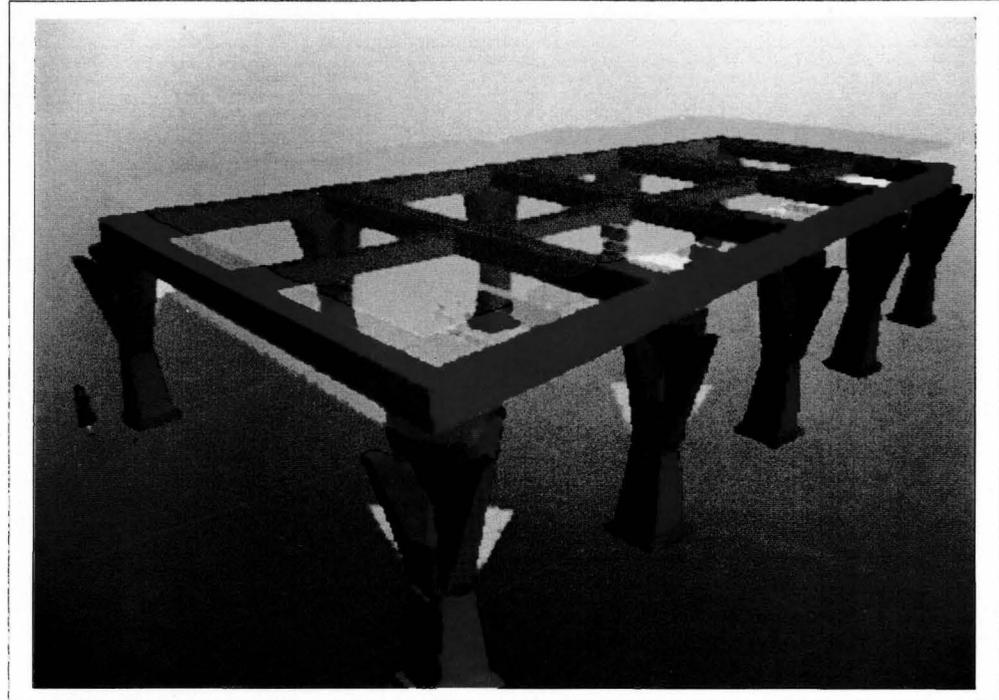


Photo 4: Grand Hall: columns supporting ceiling layers

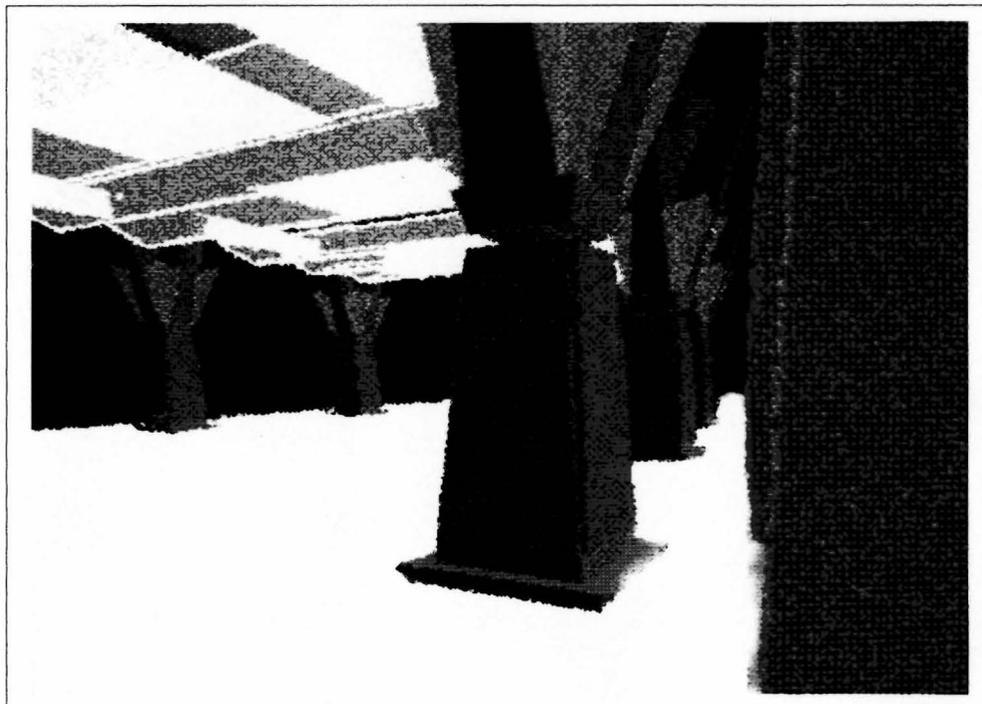


Photo 3: Grand Hall: a view from between flower columns and the side arcade

The Grand Hall

The grand hall is designed to be a room for the whole neighborhood. It can be used as a banquet room, a theater, a ballroom, etc. The structures of the ground floor are aligned with those of the underground level. Integrity is depicted not only structurally but also symbolically in that the ground floor pool is a place for gathering water, while the grand hall is a pool for gathering people.

This symbolic relation is further emphasized by the translucent glass-block roof between the two levels. During the day, natural light comes downward into the grand hall, filtered by the water, the translucent floor, the hanging fabric ceiling, casting swinging light and shadow on the floor. At night, the light from the grand hall shines out through the water body and brightens structures, trees, and people sitting around.



Photo 5: Grand Hall: a view toward stage at night

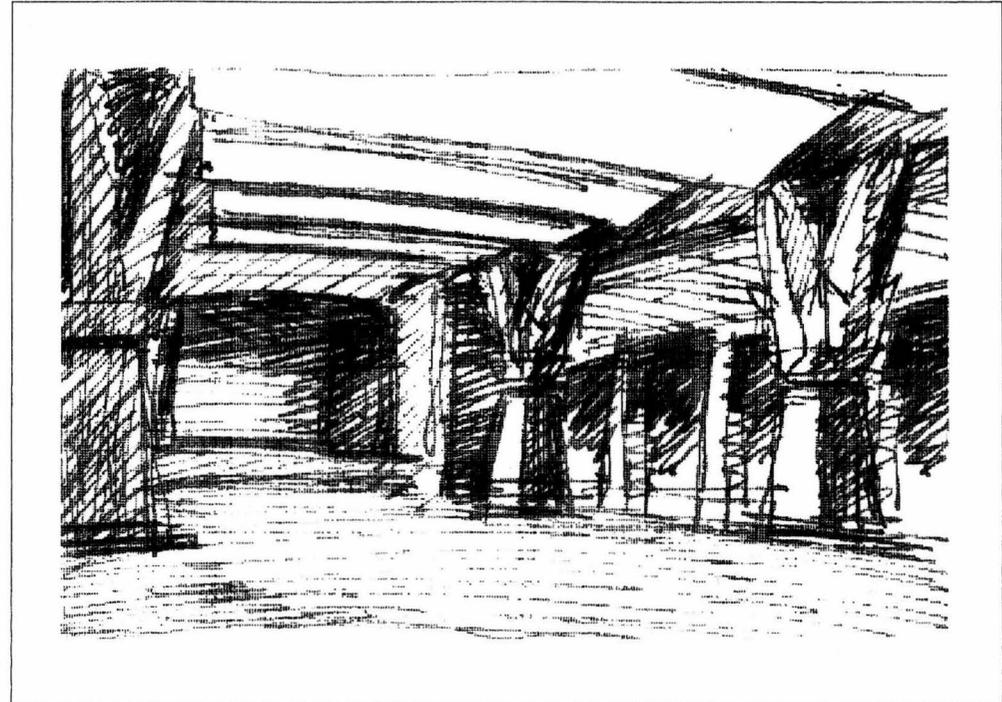


Exhibit 13: Grand Hall: light and shadow

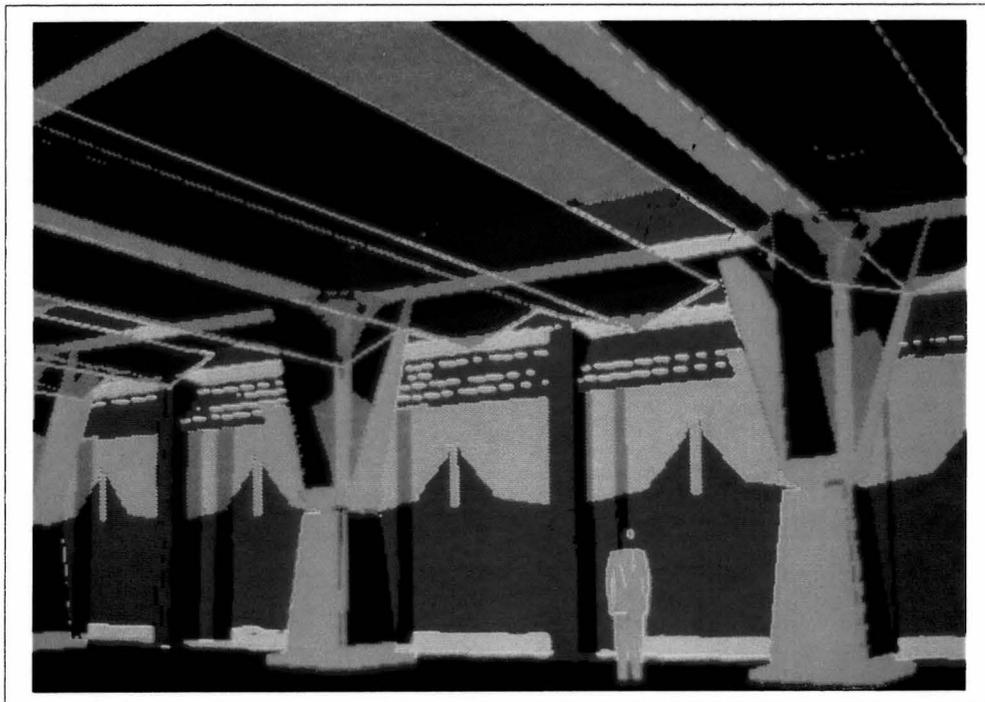


Photo 6: Grand Hall: a view toward side arcade at night



For the youth who would fancy an exotic ambiance (and in most occasions assumedly would use the hall as a ballroom), and for the older generation who would prefer gracious and reverent spaces, the magnitude of light became a critical consideration of the design.

It is apparent that I intend to fascinate users with dramatic lighting which I believe could arouse secular or religious sensations, and thus meet functional as well as emotional needs of the neighborhood residents.

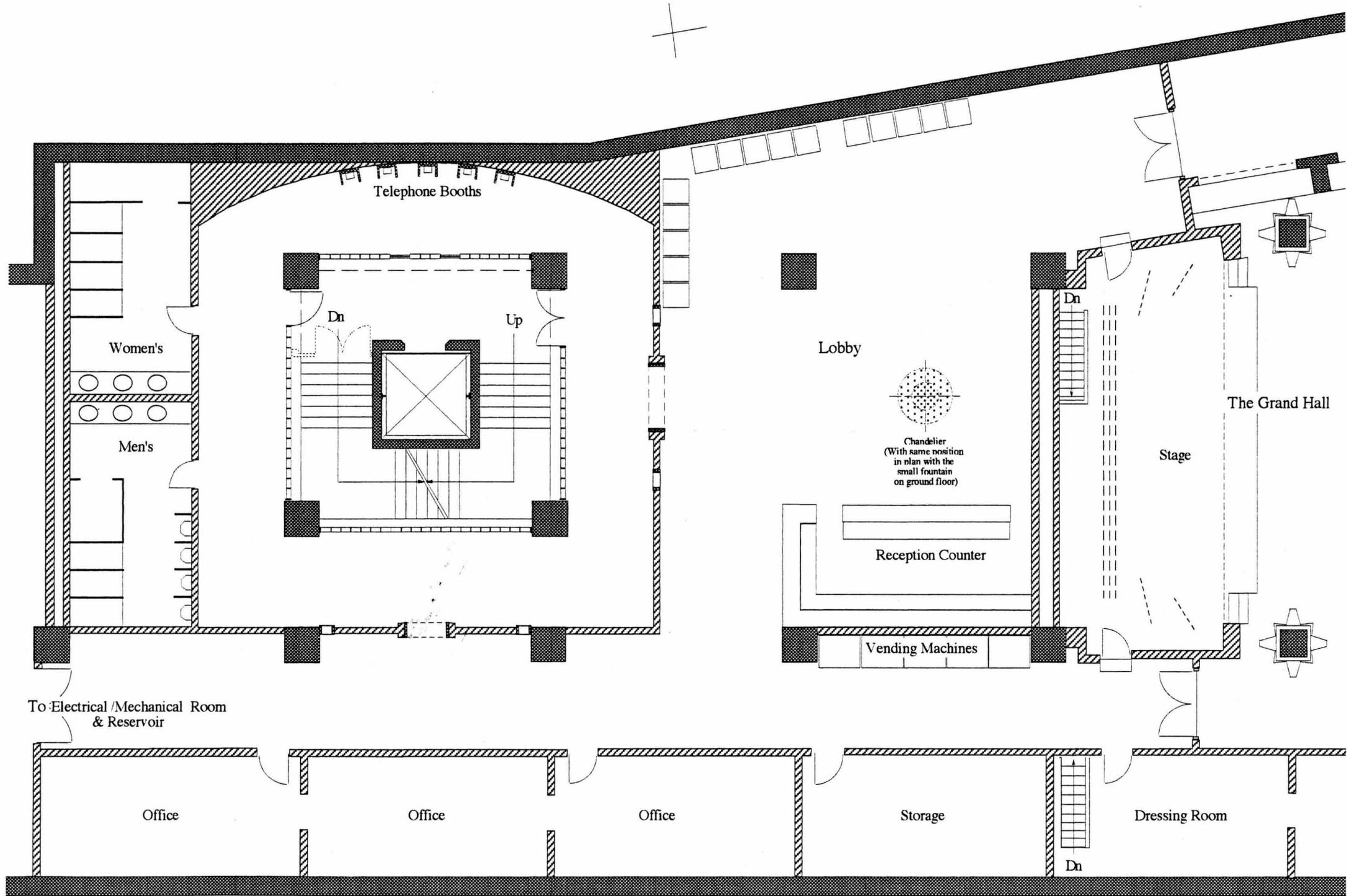


Exhibit 14: Plan of Grand Hall Lobby and Entrance Stairway

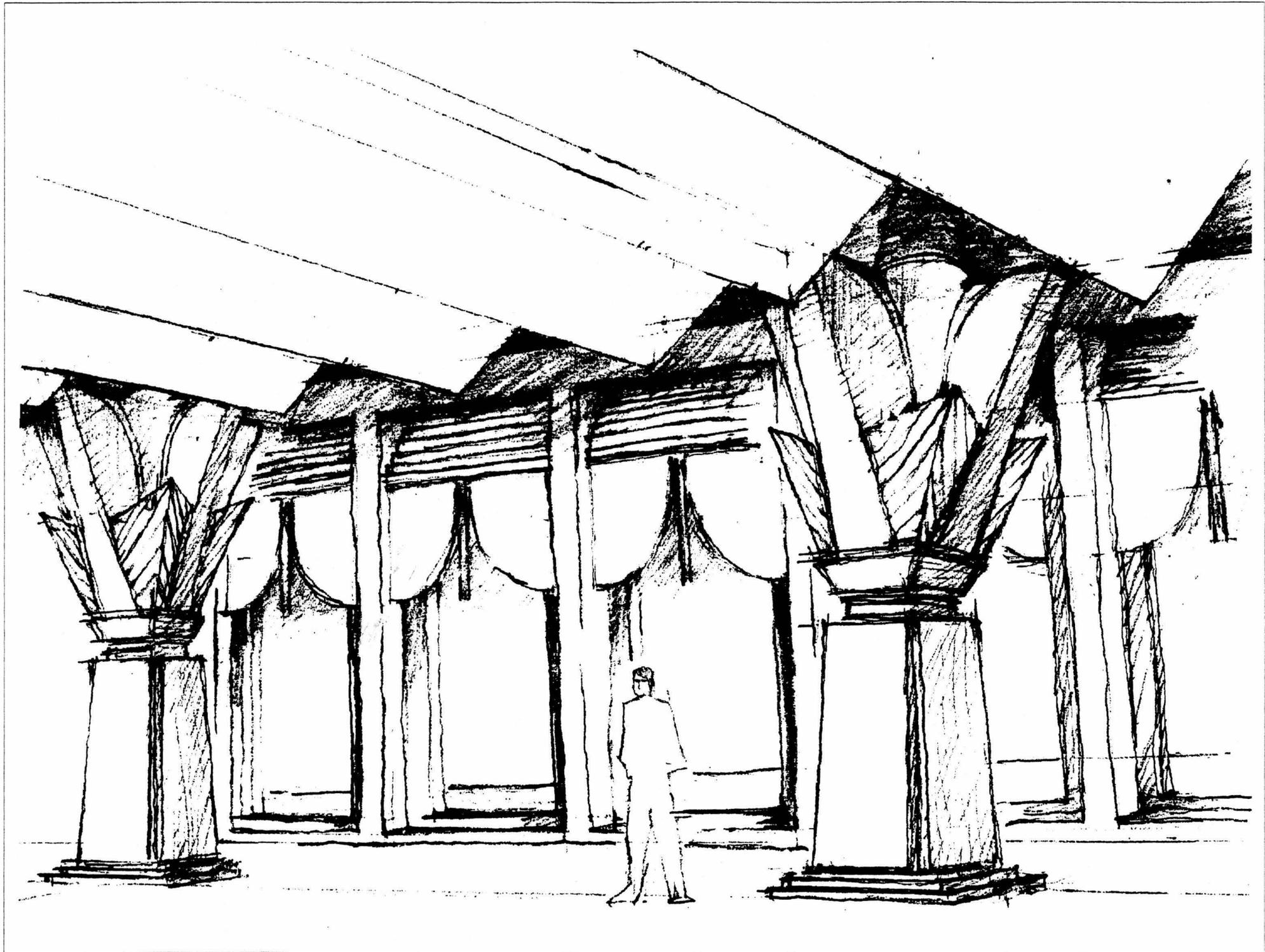


Exhibit 15: A Study of the Grand Hall

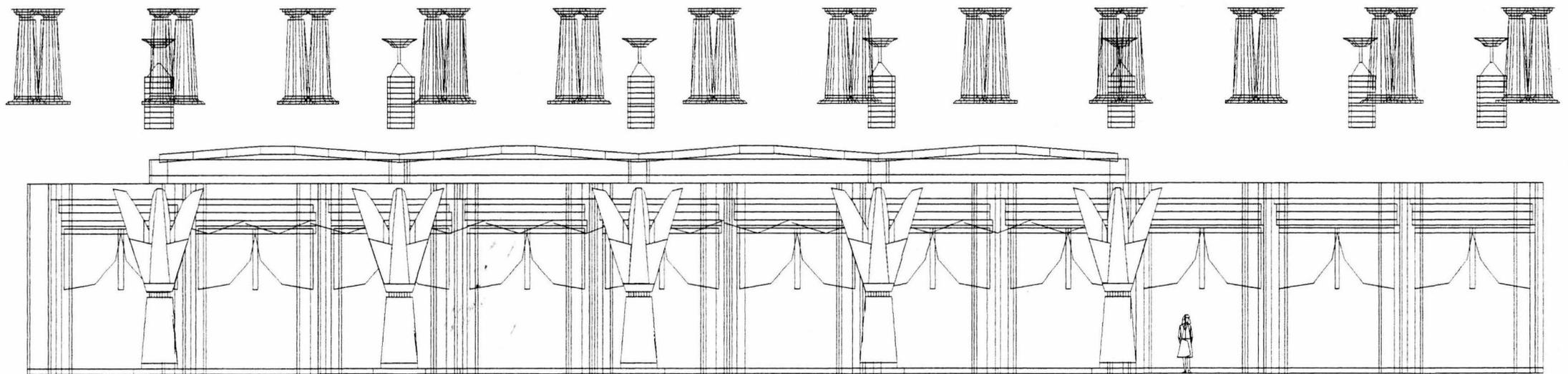


Exhibit 16: The Association of Structures

0 1 3 7 m

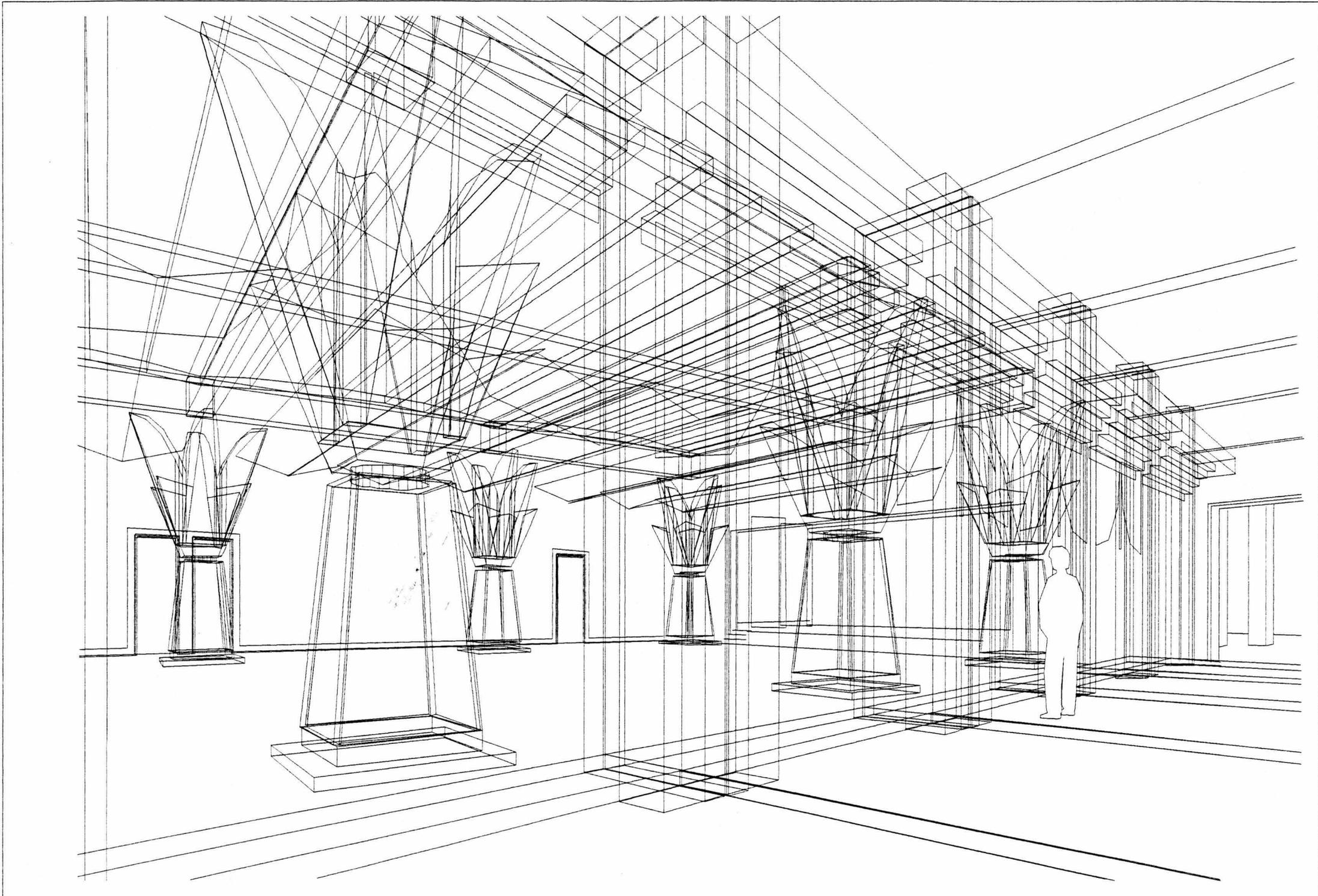


Exhibit 17: Structural Context of the Grand Hall

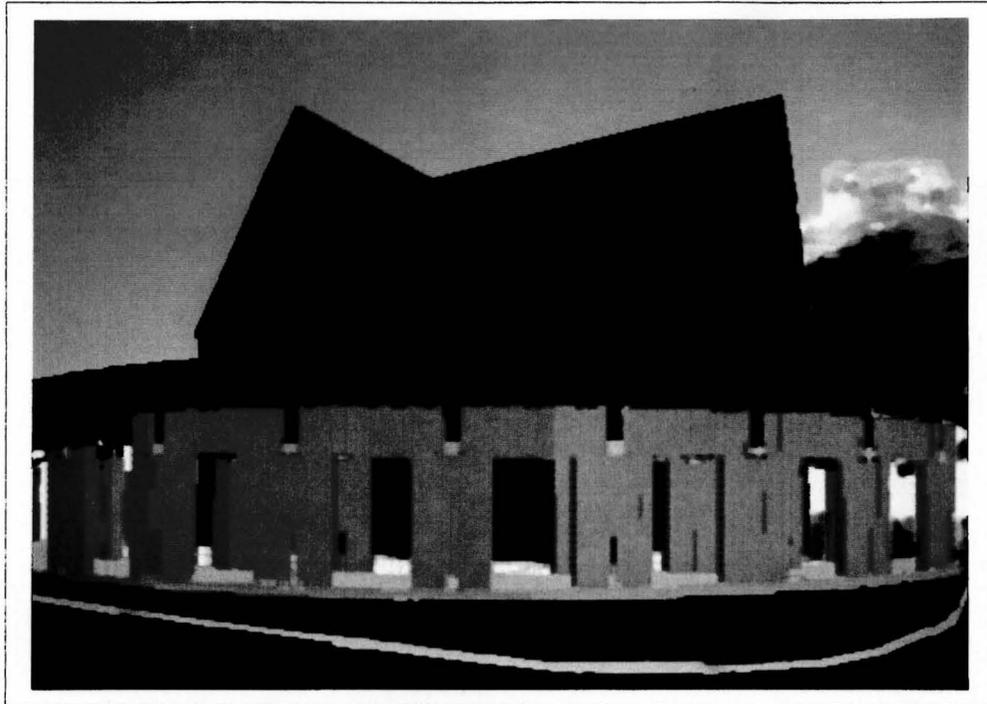


Photo 7: The round arcade encircling the firehouse



Photo 8: A view from within the round arcade toward its west end

The Firehouse and the Round Arcade

Firehouse #8, the old building built in 1929, stands like a monument in the neighborhood and seems to be “the hearth of this (urban) room.”

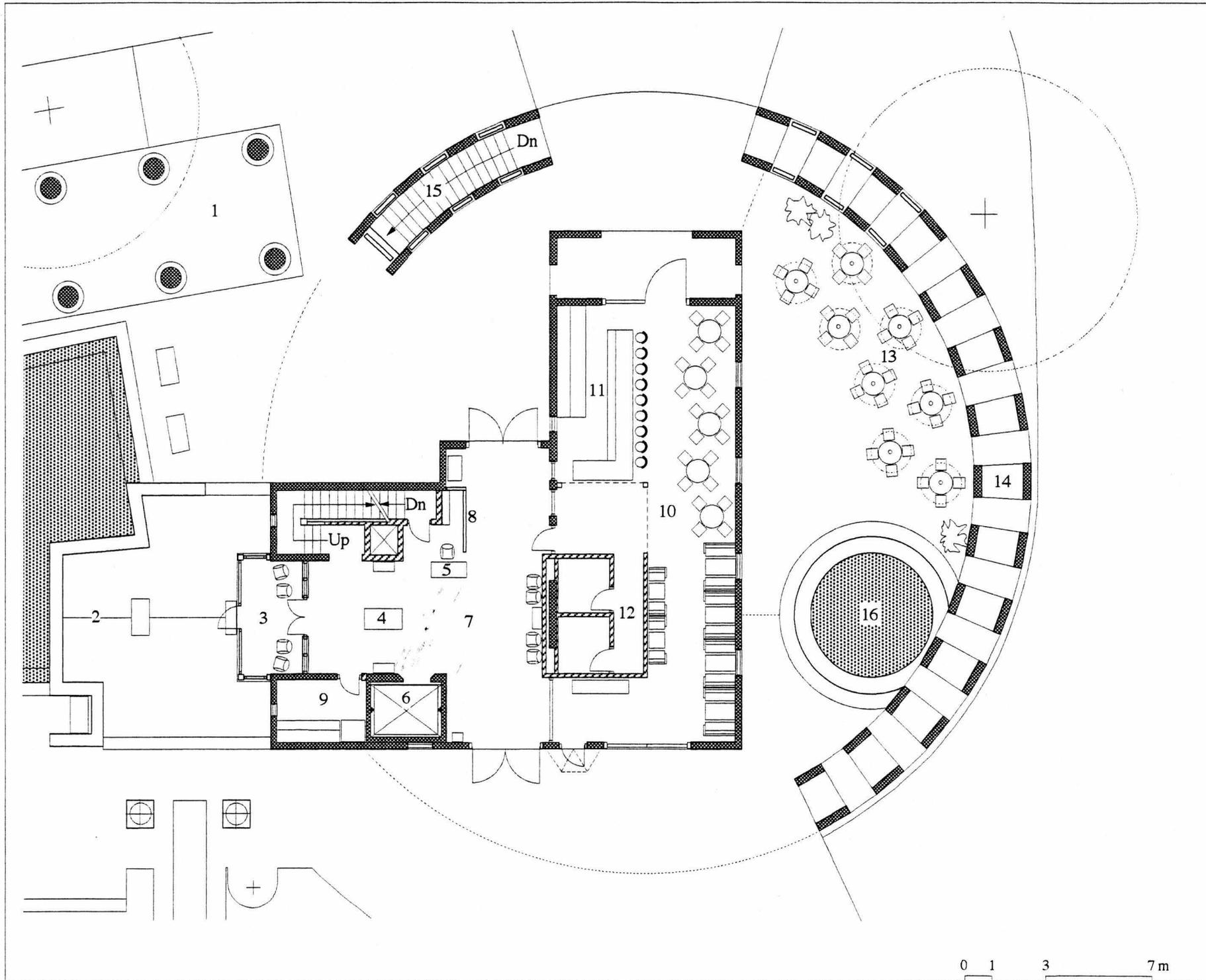
But what is this monument honoring?

What we can do to make the hearth a better place, so that people would like to be there more often, appreciate its companion, and thus make the room with the hearth become the living room of the neighborhood?

It should not be a place that only stands for an evidence of the past, but should also provide access to more historical information to the neighborhood. It should become as vital as a tree that it absorbs and produces, representing the spirit of the neighborhood, while interacting with the residents.

It will be more than suitable if we can convert the building into a community museum. It houses not only the many documentations and historic artifacts from personal and public collections, but also a community organization that will sponsor and furnish displays, exhibitions, and publications for the neighborhood. Along with the museum is a small café that provides visitors a place to sit down and chat, or simply take a rest. And it will also be left open after hours so the neighborhood residents can have a nice place to meet and talk in the evening.

Almost every building around the site has a porch either in the front, on the side or at the back of it. This is also the case with public buildings, like the post office nearby. The firehouse, owing to its initial function, does not have a porch and so when converted to a museum with a small café in it, it will need a porch-like, in-between space to make itself more amicable and inviting. *(Continue on page 25)*



1. Colonnade
2. View Platform
3. Porch
4. Model of the Park
5. Information Desk
6. Elevator
7. Museum Lobby
8. Directory
9. Kitchen
10. Café
11. Bar
12. Restrooms
13. Outdoor Café
14. Arcade
15. Exit Stairway
16. Reflecting Pond

Exhibit 18: Firehouse No. 8 Museum Ground Floor Layout

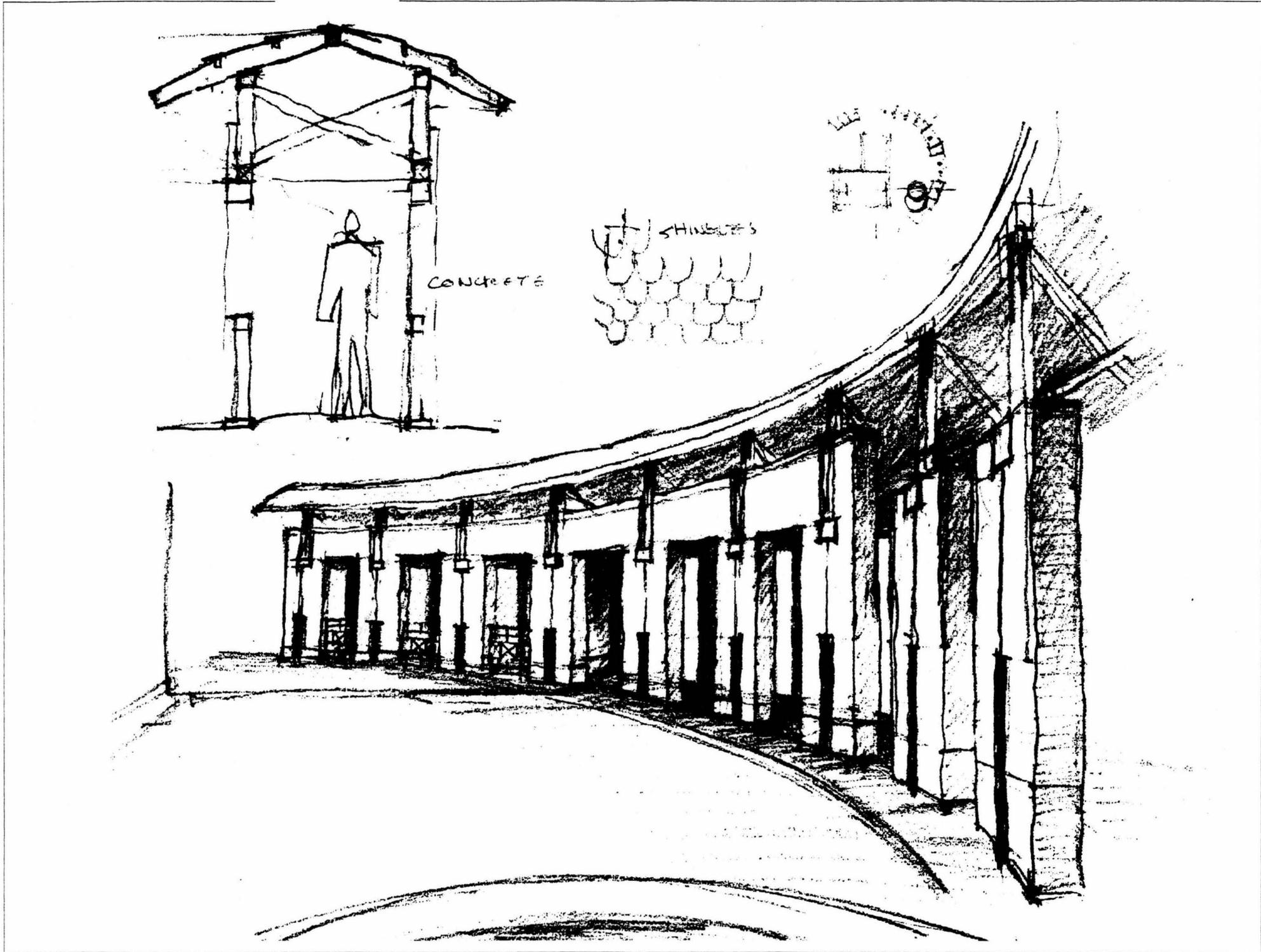


Exhibit 19: A Study of the Round Arcade and Courtyard

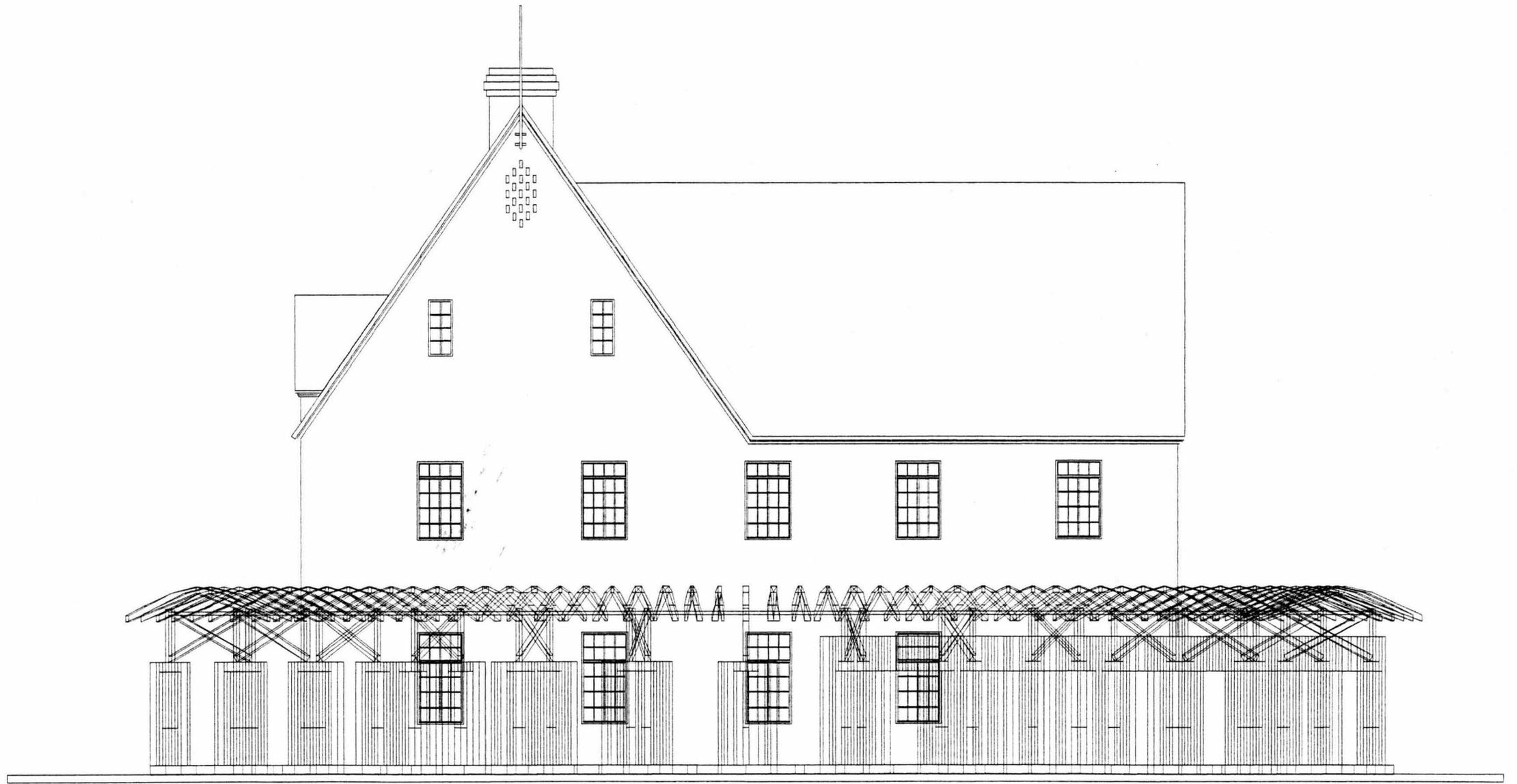


Exhibit 20: South Elevation of the Firehouse with the Arcade

0 1 3 7 m

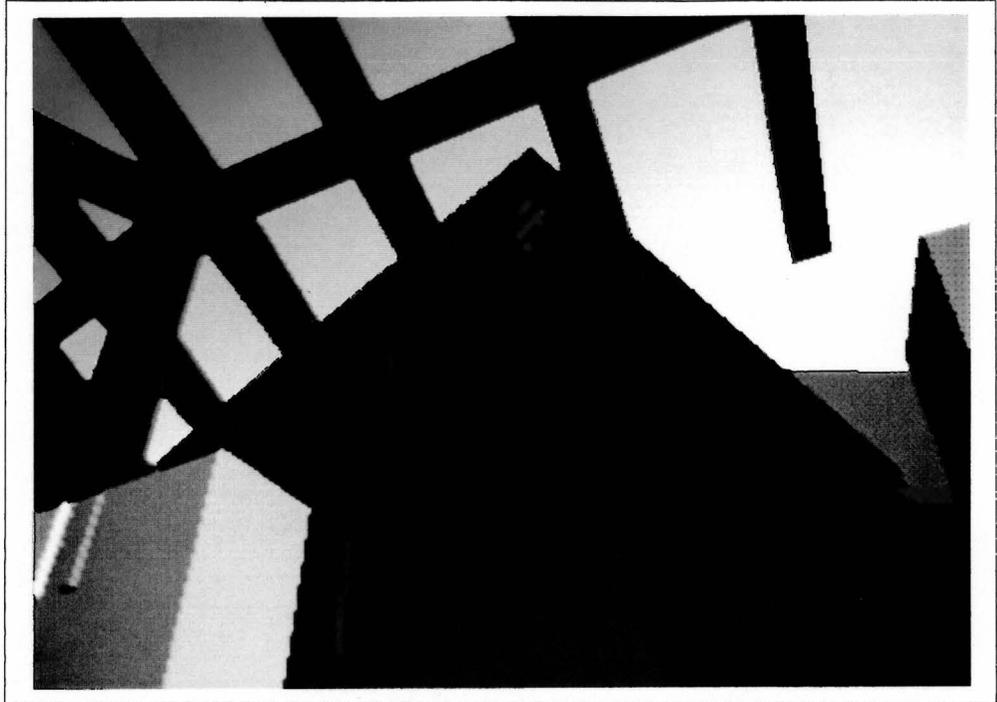
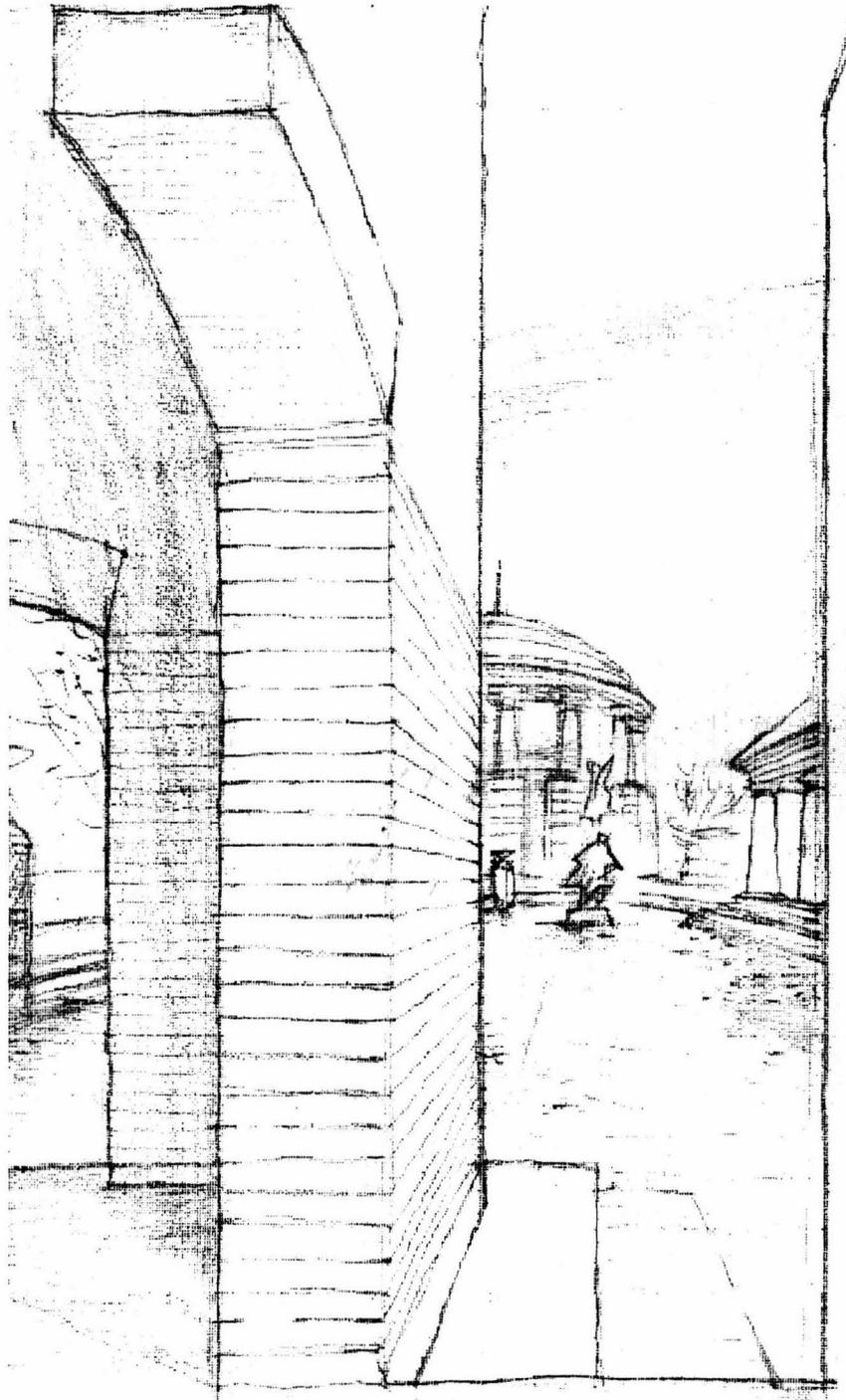


Photo 9: A View of the firehouse gable wall from the round arcade

A high, round wall with openings, encircling most of the lower part of the firehouse, is the initial idea which not only demarcates an in-between space between the firehouse and its surrounding, but also gives subtle hint about the significance of the old building.

The inner courtyard between the encircling wall and the old building can then be an outdoor area for the café.

The hidden intention of creating such a space is that when this wall frees the courtyard from the public, people can furthermore appreciate the old building and the value it represents besides enjoying drinking or chatting. The curved wall finally takes the form of an arcade topped with wooden roof trusses. Two parallel lines of masonry panels that further create an aisle in addition to the courtyard they enclosed. By using two types of the masonry panels forming different fenestration, the café's outdoor table area will be more private, and the highest part of the firehouse facade, namely the gable wall, will be more visible and accessible.

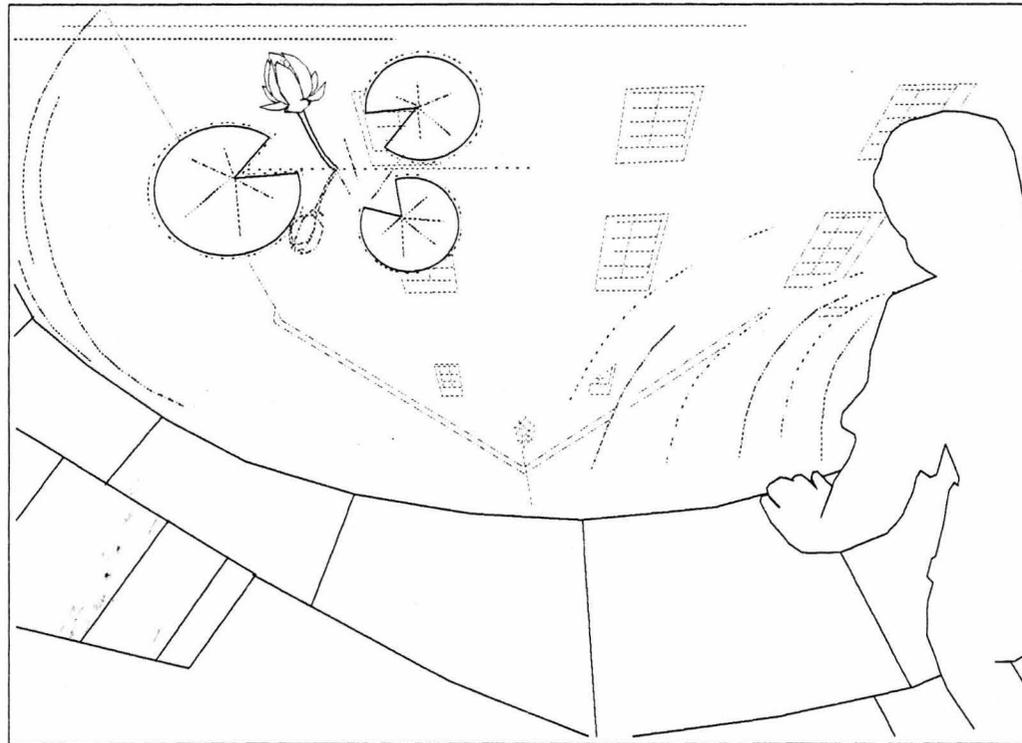


History, Medium and Reflection

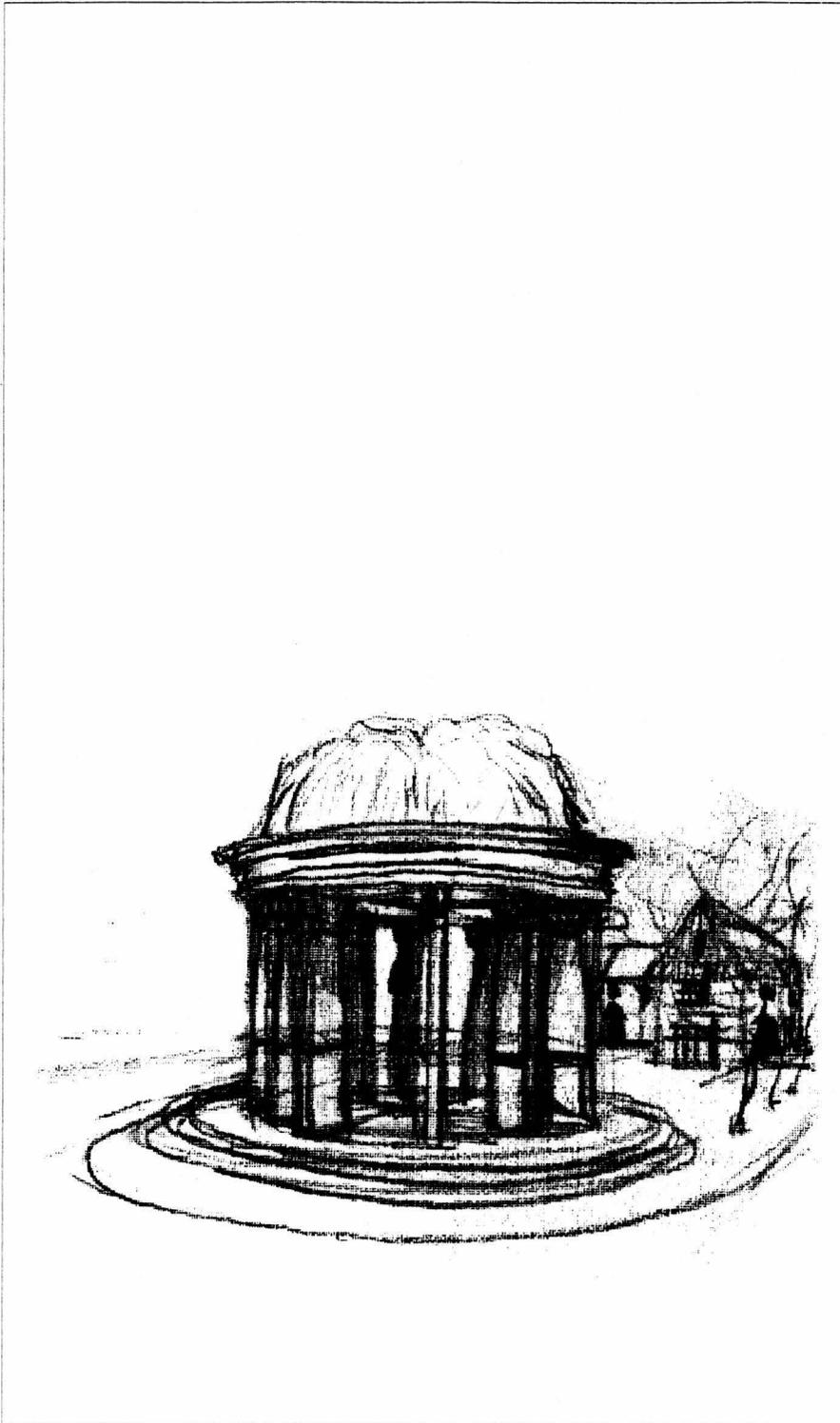
One more step to emphasize the facade design of the firehouse especially the gable wall, is to build a small pond in the courtyard so that visitors can see the reflection of the facade in addition to just looking at the facade itself. This manipulation of the reflection reveals the concept that guides the design of the entire park. As we take the firehouse as a monument of the neighborhood, we see it representing the spirit, the true value, and the history of the area. The way I chose to envision the community spirit is to focus on how rather than what to present in the design.

Media become more significant than sources.

The proposed design is to stage the variety and intensity of information of the neighborhood. In the museum, one can obtain pieces of history; or she/he could take hints referring the spring that has nurtured the neighborhood long ago, from the fountain-rotunda and the statue square. In the courtyard of the arcade, the history is already mediated by the gable wall of the firehouse, and is reflected in the small pond. Because the water is more amiable and closer to visitors than the wall itself, the visitor will tend to appreciate the water body (the medium,) and pick up whatever is on it, be it the lotus blossoms, clouds in the sky, or the apex of the gable wall... (they are all together the reflection in a broad sense.) He might even discover a way to anticipate the dramatization of the reflection. A little boy might find it intriguing just making ripples on the water to see how his play changes the image of the firehouse. This could be the way he appreciates history. And Nature.



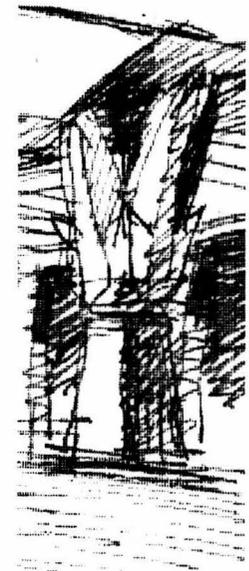
...then he followed the ripples he made on the mirror running out from his hand...

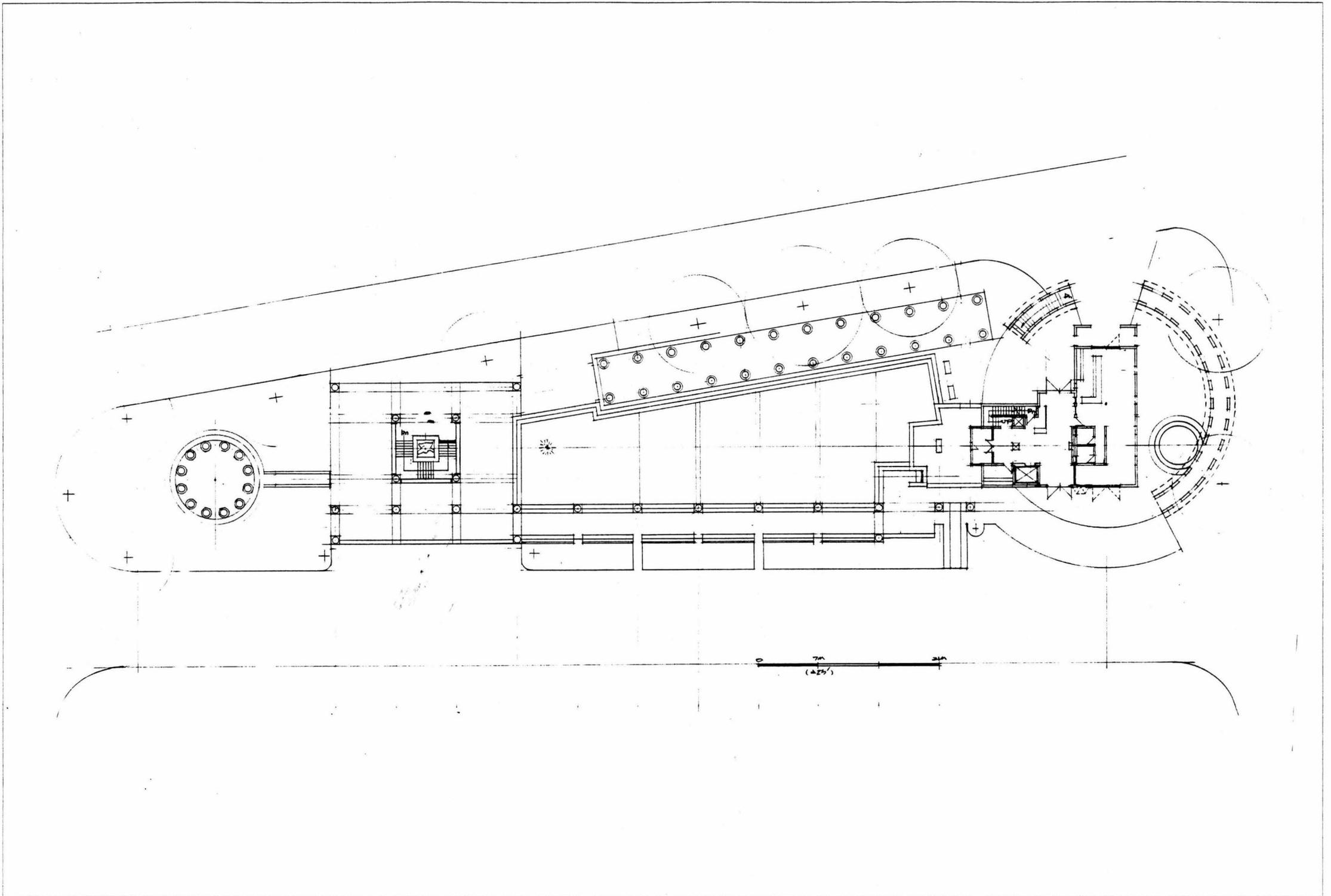


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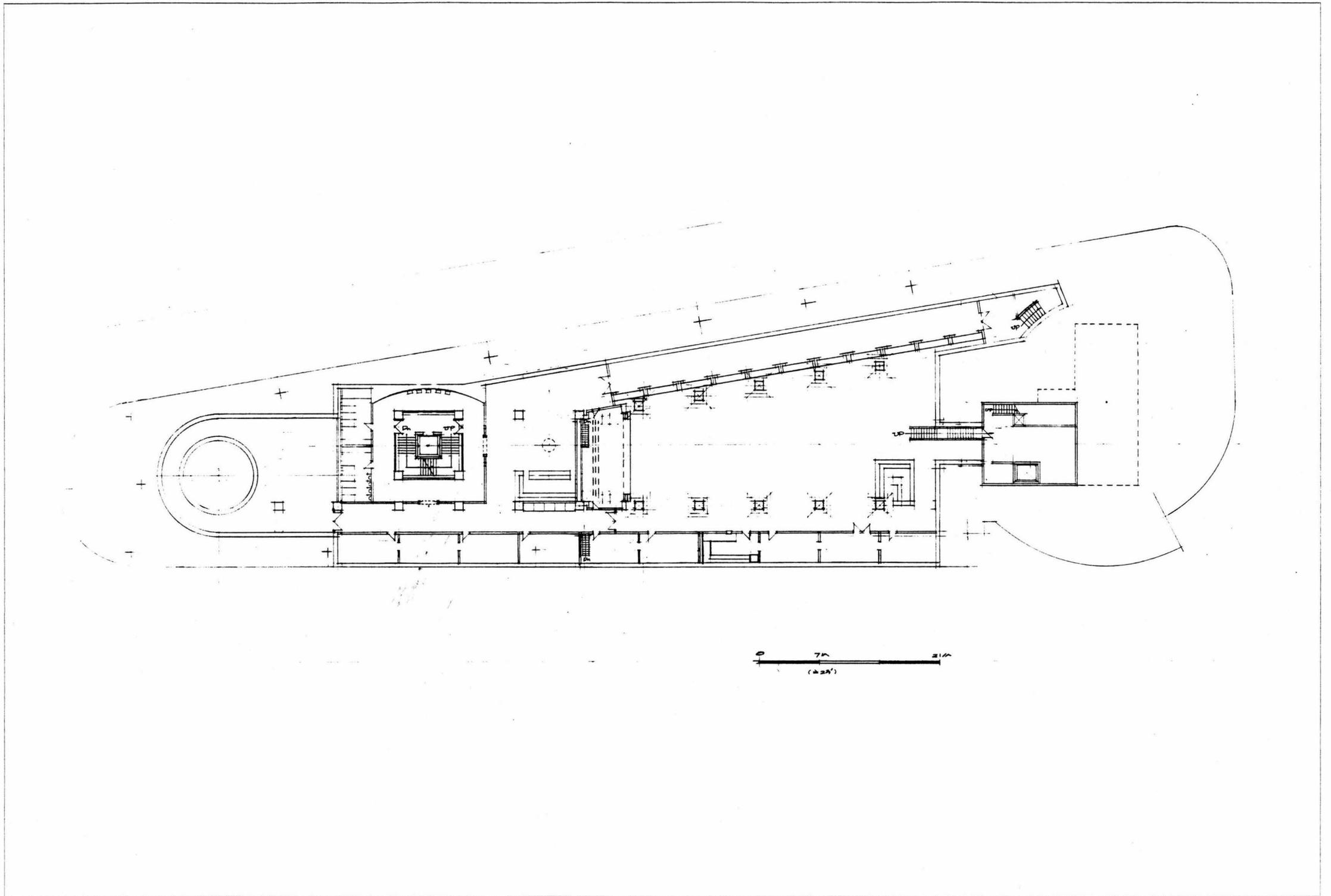
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APPENDICES





Ground Floor Plan of Crystal Spring Park



Underground Levels Plan of Crystal Spring Park



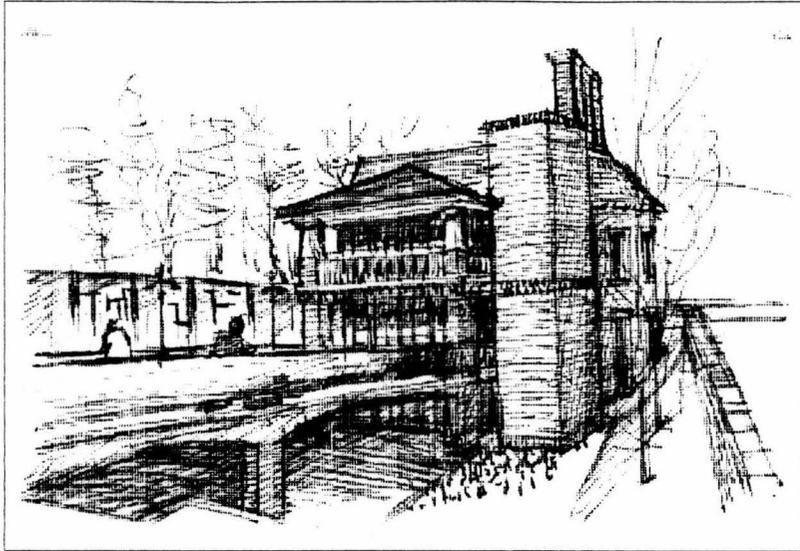
South Roanoke
Neighborhood
Information Center

Sketch A

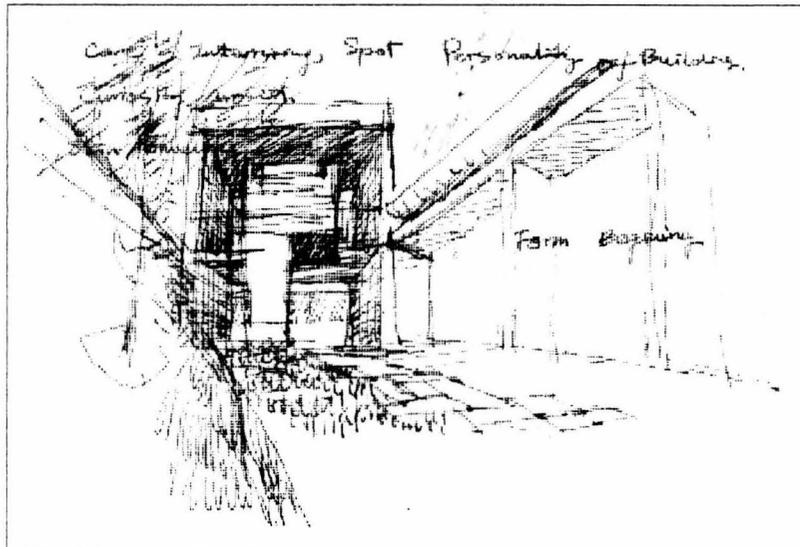
A view from the underground space toward the small water fall between the retaining wall and the main building.

Note

The proposed design in this thesis is not the first project the author did on this particular urban area. In the Spring semester of 1989, Professor Michael O'Brien, instructor of the architecture and urban design lab course, led the studio and conducted a study on the South Roanoke neighborhood. The result of the group study, a joint effort of Michael and the students, analyzes the characters and beauty of the neighborhood. The primary purpose of the study was to recognize the charm of the neighborhood and provide our impression by sketches and drawings. After the study, students were involved in the project that will propose new structures around the site which should suitably serve and improve the community. Here and following are some sketches from the project that illustrate the author's ideas of design.

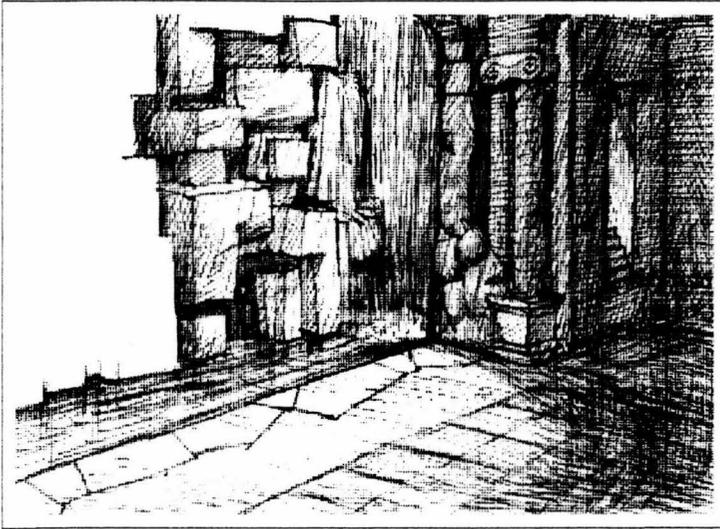


Sketch B

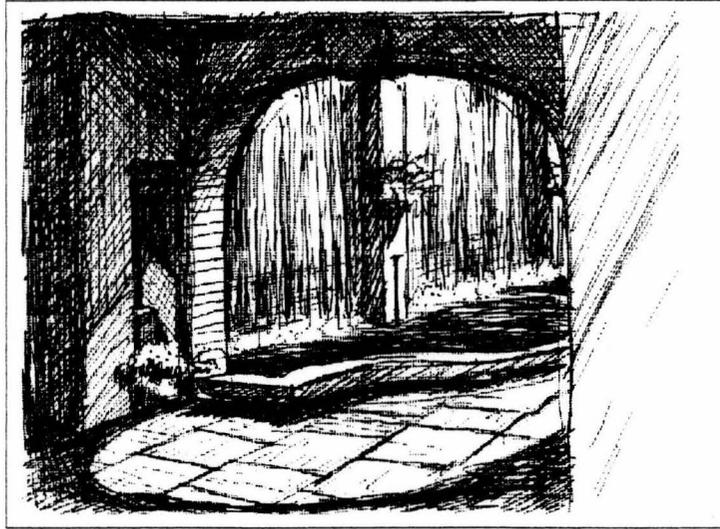


Sketch C

The design proposed a house-like building (Sketch B) with a dig-in space and a semi-closed basement (Sketch C). The south side retaining wall was so designed to assemble rocks and water fall (Sketch D & F). Water and light coming down from the narrow, in-between spaces beside the wall vividly link different levels and spaces together.



Sketch D



Sketch F

In that following project, the author finds it particularly interesting that:

1) the neighborhood residents live closely to their natural environment. One will feel like being inside a well-maintained natural greenhouse when visiting the area. Natural elements like water and trees should be intimately embraced.

2) the structural context of the area is humanly scaled owing to its residential zoning, which is a subtle beauty itself and should be sustained.

3) the neighborhood carries many stories and memories from her past. As many are the manifest and historic structures. These are the roots which spiritually tie the neighborhood together, and because of that, the design ideas inspired by them would be quite intriguing to the residents.

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